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ABSTRACT

This report on the high proportion (25 percent) of California high school students who drop out is divided into five major sections. The first discusses the historical shifts in reform efforts to address, alternately, "relevance" and "excellence." It finds that high school students are now more bored and apathetic than committed to excellence, but they stay in school for instrumental reasons: to get better jobs, to get into college, etc. The second section focuses on students' reasons for withdrawing from school, common characteristics of dropouts, and the consequences of dropping out. School attitude is the major reason cited for leaving school, and students most likely to drop out are: Hispanic and black, from families with low socioeconomic status or where the father is absent, and often from families who have frequently moved from one school to another. High school dropouts are far less likely than graduates to attend postsecondary school or to be employed. The third section describes several programs offered by California school districts which have some expectation of influencing the decisions of youth to stay in school. These include continuation high schools, work experience programs, and independent study programs. The fourth section analyzes survey data to assess the effects of retention programs in students' decisions. The final section summarizes conclusions and offers recommendations which emphasize giving students a choice of commitments that demand active involvement and effort. A five-page reference list concludes the document. (KH)

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REDUCING THE HIGH SCHOOL DROPOUT RATE IN CALIFORNIA: Why We Should and How We May

David Stern, James Catterall,
Charlotte Alhadeff, and Maureen Ash

California Policy Seminar
Final Report Number 10

CALIFORNIA POLICY SEMINAR

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INSTITUTE OF GOVERNMENTAL STUDIES
University of California, Berkeley

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EXECUTIVE SUMMARY

REDUCING THE HIGH SCHOOL DROPOUT RATE IN CALIFORNIA

In recent years more than 25 percent of California's public high school freshmen have failed to graduate four years later. Is this a problem? Who is to blame? Can schools reduce dropout rates without lowering standards?

To answer these questions, we analyzed new data on California high school students. The data were collected in 1980 and 1982 as part of the national survey of High School and Beyond. Our analysis reaffirmed that lack of a diploma, by itself, does penalize young people in the labor market. Furthermore, the students who are most likely to leave high school without a diploma are those whose family background gives them less advantage to begin with. Therefore, the present situation must be considered unsatisfactory if public schools are intended to offset rather than intensify disadvantages due to family origin.

But dropping out is also a symptom of problems in high school that affect students of all kinds, not only those from disadvantaged groups. A related symptom is students' widespread apathy toward schoolwork. Policies to redress the dropout problem must take into account the problematic nature of high school itself: what students are dropping out of. We begin, therefore, with a discussion of high school and its perpetual reform. We then report on the High School and Beyond data, describe current programs designed to help students finish high school, and end with recommendations.

High School and its Perpetual Reform

Excellence and Relevance

Since the late nineteenth century, when high schools began to broaden their clientele beyond the traditional elite, there has been tension between traditional academic standards and the practical interests of students not bound for college (see Boyer, 1983). The tension has produced chronic debate about what should be taught and how (Kirst, 1983). On one side, some have insisted on rigorous coverage of certain subject matter. In contrast, others have stressed the importance of usefulness and relevance from the students' point of view. Advocates of relevance have scorned the teaching of abstract ideas, facts, or propositions remote from students' experience. Dewey, Whitehead, and other academic authorities have given cogency and legitimacy to the argument for relevance. "Education is the acquisition of the art of the utilization of knowledge," in Whitehead's famous definition (1912/1949, p. 16). But, in spite of the arguments for relevance, high school students' experience still consists mainly of "taking subjects" (Sizer 1984, p. 83) that have no immediate use, if any.

In the quarter-century since Sputnik, the weight of opinion about American high schools has swung toward academic excellence, then toward relevance, and now back toward academic excellence again. Sputnik stimulated concern that schools were lacking in academic rigor (see Conant 1959, Rickover 1963). Curricular reforms in math and sciences were designed in part to produce more and better scientists and engineers.

The emergence of a rebellious "youth culture" in the 1960s propelled reform efforts back toward relevance. "Alternative schools" flourished.

Several distinguished national commissions recommended changes such as more awarding of academic credit for off-campus work experience, and outright lowering of the compulsory school attendance age (President's Science Advisory Committee, 1973; National Commission on the Reform of Secondary Education, 1973; National Panel on High School and Adolescent Education, 1976). For several reasons -- including very low unemployment in the late 1960s, the Vietnam war, the baby boom generation entering high school en masse, and increased use of psychoactive and birth-control drugs -- high school students became less willing to submit to traditional school disciplines. Their anti-academic attitude also received support among the adult public. Gallup polls in 1971 and 1972 found large majorities of both high school students and the general public agreeing that "the schools spend too much time in preparing students for college and not on occupations which don't require a college degree" and approving of "schools reducing the amount of classroom instruction to make greater use of educational opportunities outside the school" (Timpane and others, 1976, p. 132). In bellwether California, statewide course requirements for high school graduation were eliminated in 1969. Nationally, a survey of high schools in 1977 found most were sponsoring off-campus work experience, independent study projects, and early graduation (Abramowitz and Tenenbaum, 1978).

The loosening of traditional academic standards between 1965 and 1975 occurred just when high school graduation rates were surging to an all-time high. The rise in graduation rates was in part the product of deliberate public policy. During the administrations of Presidents Kennedy and Johnson, finishing high school was seen as an important precondition for disadvantaged youth to rise from poverty and enter the mainstream economy (Bachman and others, 1971, p.2). As the proportion of the civilian labor force who had at least graduated from high school rose from less than half in 1959 to almost two-thirds in 1970, lack of a high school diploma became a more serious handicap for a young person seeking paid work, and the pressure to finish high school intensified even for students who were not college-bound. Requiring fewer academic courses, and awarding more credit for work experience, were among the schools' attempts to accommodate these students.

Most recently, the pendulum has swung back again. Declining productivity growth in the economy and declining test scores in the schools, along with a shift in political priorities away from concern for the have-nots, have pulled reform efforts back toward enforcing academic standards. The first and clearest of the recent series of reports urging return to stricter standards was A Nation at Risk (National Commission on Excellence in Education, 1983). It complained that "the ideal of academic excellence as the primary goal of schooling seems to be fading across the board in American education" (p.14). After reviewing evidence of declining educational performance, the report listed its findings about aspects of the educational process that have contributed to the decline. First among the findings:

> "Secondary school curricula have been homogenized, diluted, and diffused to the point that they no longer have a central purpose. In effect, we have a cafeteria-style curriculum in which the appetizers and desserts can easily be mistaken for the main courses....
>
> "This curricular smorgasbord, combined with extensive student choice, explains a great deal about where we find ourselves today....
>
> "Twenty-five percent of the credits earned by general track high school students are in physical and health education, work experience outside the school, remedial English and mathematics, and personal service and development courses, such as training for adulthood and marriage". (pp. 18-19)

The Commission on Excellence recommended tougher standards for high school graduation, more time on academic subjects, and various measures to strengthen the teaching profession. This program, in various versions, quickly swept the country. By the fall of 1983, 26 states had adopted more stringent requirements for high school graduation, and the remaining 24 states were all actively considering proposals to do the same (Education Week, December 7, 1983).

The current insistence on academic standards raises the usual opposing concerns about the relevance to students who are not college-bound, some of whom have enough trouble getting through high school as it is. Harold Howe charged that "a major component missing" from most of the recent commission reports "is any recognition of the importance of motivation" for students. He warned that the "recommendations for more homework, more demanding courses, longer school days, and more tests are likely to be implemented in ways that further increase the number of dropouts..." (Howe, 1984). As someone else succinctly put it, "If a kid isn't clearing six feet, what's the point of raising the bar to six feet and two inches?"

One prominent advocate of tougher academic standards is Bill Honig, Superintendent of Public Instruction in California. During his campaign in 1982, he argued:

> "For the last decade, we've run the schools for the dropouts. We lowered expectation levels in an attempt to keep them in school. Not only has that approach failed to do that, it's totally devalued education to the point where kids think it's a joke... Do we continue running the schools for the dropout and sacrifice the average and above average kids -- or do we take the '50s approach and run the system for bright kids?" (Lafferty)

While it is true that high school dropout rates did rise during the 1970s, it does not necessarily follow, as Honig's remarks imply, that reforms designed to make high school more relevant to students were a failure. The Current Population Survey in October, 1981 found 16 percent of all 18 and 19-year-olds were not high school graduates and not enrolled in school. This was slightly higher than the 15.3 percent found in October, 1971. But the increase occurred among whites, not among blacks. The percentage of white 18 and 19-year-olds who were not high school graduates and not enrolled in school rose from 14 to 15.5, while among blacks it fell from 24.1 to 19.3 (Grant and Snyder, 1984, p. 71). This is consistent with the view that the 1965-75 reforms were an accommodation to students from groups who were staying in high school more than they had before. If students who graduated after participating in new alternatives to the traditional academic curriculum were successful after high school (some evidence on this is presented below), then these reforms did not fail, at least for students in groups whose high school graduation rates were rising.

But why did more white students start dropping out after the early 1970s? We do not know. Possible explanations include white flight from school itself; rising unemployment and the realization that graduation from high school no longer guarantees a job; or even, as the advocates of academic excellence suggest, the loss of challenge in the high school curriculum.

Still, there is no evident way to make the high school curriculum more *academically* rigorous, if that means all students covering more academic material, and at the same time to make it more relevant to students who are not college-bound. Nationwide, 31 percent of the students who were high school seniors in the spring of 1980 enrolled in four-year colleges that fall. Another 19 percent went to two-year colleges, and five percent to vocational or technical schools (National Center for Education Statistics, 1984). Projections of employment in occupations requiring a college degree do not indicate that college attendance rates will rise for economic reasons (U.S. Bureau of Labor Statistics, 1982). In the foreseeable future, the proportion of students who stop their formal education when they leave high school will remain large.

However, it is possible to reconcile excellence and relevance -- provided that excellence is not defined only in terms of academic pursuits. The key is commitment: an active effort by students to accomplish something worthwhile.

Endemic Apathy

High schools do not now elicit a commitment to excellence by many students. To the contrary, boredom and apathy seem to prevail. In a 1977 survey, high school principals cited "student apathy" as a serious problem more than they cited lack of resources, bureaucratic regulation, or any other problem (Abramowitz and Tenenbaum, 1978, p. 86). Likewise, high school teachers report "lack of student interest" as the biggest problem for them (Goodlad, 1984, p. 72). The Goodlad study also asked high school students what was the "one best thing" about their school. The top choice was "my friends," by 34 percent of the students. Only seven percent chose "classes I'm taking," and three percent said "teachers" -- while eight percent chose "nothing"! (p. 77.) A 1984 survey by the National Association of Secondary School Principals found the same thing: friends and sports ranked much higher for students than did teachers, classes, or learning. In California, when 300 students in several communities were asked to describe their school experience in one or two words, the most frequent response, by 43 percent, was "boring" (Citizens Policy Center, 1982). The fact that high school students typically report spending as much time watching television during one weekday as they spend on homework in a whole week (see Table 5 below), likewise reflects little motivation to do school work.

Who is to blame? Certainly not the high school teachers and administrators who spend their best energies trying to help students become good and useful citizens. In fact, we would not place major responsibility for the current situation on anyone now living. Students and educators now working in high schools have inherited a situation that is bound to frustrate all students except those who are actively competing for admission to selective postsecondary institutions or who genuinely want to study. For the rest, frustration is likely to arise from the basic institutional split between education and production. In the U.S. and other industrial societies, a report for O.E.C.D. found

> "The dilemma of the curriculum for many young people can be simply put: schools are supposed to help prepare for one's future occupational role, but they operate in isolation from the actual world of work." (Centre for Educational Research and Innovation, 1983, p. 49).

Historically, this dilemma arose in the U.S. during the period from roughly 1890 to 1935. High schools were transformed from elite academies to institutions of mass education, compulsory schooling and child labor laws were enforced, and minimum wage laws were enacted -- all in response to the transition from a predominantly rural and agricultural to a predominantly urban and industrial economy. As the hierarchy of jobs in the industrial economy took shape, schools were seen as places to keep children safe from the dangers of low-level work in factories and sweatshops, as well as to keep children from competing for jobs against adult men, and also to nourish hope for able children to rise into the ranks of managers and professionals. In spite of John Dewey and others, the high school remained organized on the classical, subject-centered model that prevailed when it was still an elite institution. It is still organized that way, in large part because most colleges and universities are. So today, as Sizer (1984) put it,

> "'Taking subjects' in a systematized, conveyor-belt way is what one does in high school...The adolescents are supervised, safely and constructively most of the time, during the morning and afternoon hours, and they are off the labor market. That is what high school is all about."(p. 83)

Yet, around the edges of "school time," during summers or after school, most high school students now do manage to get into the labor market. Recent surveys in the United States have found that 50 to 60 percent of high school students are holding paid jobs at any given time, and 80 or 90 percent of the seniors have held at least one paid job at some time during their high school years (Lewis et al, 1983; Lewin-Epstein, 1981). Many students find their jobs a welcome relief from school -- like the high school junior quoted in the Boyer (1983) report who said her classes were

> "pretty boring, but then I suppose that's the way school classes are supposed to be...This year I've been working at McDonald's so I can buy some new clothes and a stereo set. The work isn't all that hard or exciting, but still it makes me feel on my own and that I'm an adult person, that I'm doing something useful. In school, you never feel that way. Not ever."(p. 202)

This is not an unusual reaction. In 1980 the High School and Beyond survey estimated that, nationwide, 51.5 percent of the seniors who had ever worked for pay considered their present or most recent job "more enjoyable than school" (Jones and others, 1983b, pp. 8-19).

Yet, by a substantially larger majority, 85 percent of the same seniors said their jobs were not "more important" than school. Students see high school as important for hard-headed, instrumental reasons. They believe they need a diploma to go to college, to get a good job, or generally to compete in the world. A 1978 survey in California, designed to find out why so few students were making use of a new option to graduate from high school early by passing a state examination, discovered that these instrumental considerations were the reasons why most students intended to stay and fulfill the requirements for a regular diploma from their local high school (Stern, 1982, p. 43). While many students are indifferent to school work and impatient with the student role, they stay in high school because they would rather be bored than sorry.

The Dropout Problem

But some students do drop out. The best data on high school dropouts come from the High School and Beyond (HS&B) survey, sponsored by the National Center for Education Statistics (Jones and others, 1983). It began in the spring of 1980, with a baseline survey of about 30,000 sophomores and 28,000 seniors enrolled in 1,015 public and private high schools. The schools were chosen by stratified probability sampling, and students within each school by simple random sampling. One major advantage of the HS&B data for learning about dropouts is that they can be clearly distinguished from students who merely transferred from one high school to another. The first follow-up survey, in the spring of 1982, collected data from every 1980 sophomore who was still attending the same school, and from about half of those who were no longer attending the same schools as in 1980. The school leavers -- including dropouts, transfers, and early graduates -- were sampled at predesignated rates to produce sufficient numbers of cases in various categories.

Because students had different probabilities of being included in the HS&B sample, the data must be weighted in order to compute unbiased estimates of means, proportions, or other characteristics for the student population as a whole. The average student in the 1982 national follow-up sample represents 134 students in the national population, but the sampling weight (the number of students in the population represented by one student in the sample) ranges from a minimum of 1.45 to a maximum of 3,196 (Jones and others, 1983, p. 26).

Tables 1A and 1B show the percentage of dropouts giving various reasons for leaving school. In these tables, and subsequently except where noted, a dropout is a person who was enrolled as a sophomore in the spring of 1980 but

Table 1A: Percentage of 1980 sophomore dropouts from public and private schools reporting each of the reasons for leaving school before graduation, by sex and race/ethnicity.

	Male		Female	
Reasons	Minority	Other	Minority	Other
School-related				
1. Expelled or suspended	14.3	12.3	3.2	6.3
2. Had poor grades	31.2	38.4	30.0	30.0
3. School was not for me	14.8	45.6	24.9	34.1
4. School ground too dangerous	2.2	2.9	3.1	1.1
5. Didn't get into desired program	12.8	4.7	5.0	4.2
6. Couldn't get along with teachers	22.0	19.8	8.1	10.2
Family-related				
1. Married or planned to get married	5.5	7.6	19.2	36.4
2. Was pregnant	N/A	N/A	29.2	20.5
3. Had to support family	21.5	9.3	10.6	7.1
Peer-related				
1. Friends were dropping out	6.0	6.7	1.7	2.7
2. Couldn't get along with students	6.6	4.7	5.7	6.0
Health-related				
1. Illness or disability	4.7	4.6	9.0	5.3
Other				
1. Offered job and chose to work	24.1	28.4	12.8	9.7
2. Wanted to enter military	8.3	6.7	1.1	.6
3. Moved too far from school	2.2	2.2	5.5	5.2
4. Wanted to travel	6.5	7.3	2.4	8.5
Sample size	537	648	486	615

Notes:
1. Students might report more than one reason.
2. Minority group includes Hispanics, blacks, and American Indians and Alaskan Natives. Whites and Asian Americans were grouped together because they provided similar reasons for dropping out.
3. The standard error of the difference between two percentages (d) can be approximated by taking the square root of the sum of the standard errors for p_1 and p_2. That is s.e (d) = [s.e. $(p_1)2$ + s.e. $(p_2)2]^{\frac{1}{2}}$ where s.e. (p) = $D[p(100-p)/n]^{\frac{1}{2}}$. n is the sample size and D is a correction factor estimated to be 1.6. The above spproximation generally is conservative.
4. All percentages are based on weighted computations.

Source: Peng, Takai, and Fetters (1983).

Table 1B: Percentage of California 1980 sophomore dropouts from public and private schools reporting each of the reasons for leaving school before graduation, by sex and race/ethnicity.

Reasons	Male		Female	
	Minority	Other	Minority	Other
School-related				
1. Expelled or suspended	17.3	7.7	1.6	0
2. Had poor grades	26.4	35.7	36.1	20.2
3. School was not for me	20.8	37.5	47.1	29.9
4. School ground was too dangerous	10.7	0	1.5	0
5. Didn't get into desired program	11.0	0.5	18.5	0
6. Couldn't get along with teachers	12.9	3.2	3.3	2.9
Family-related				
1. Married or planned to get married	4.1	0	18.6	11.2
2. Was pregnant	NA	NA	13.8	22.8
3. Had to support family	7.0	18.9	4.5	1.0
Peer-related				
1. Friends were dropping out	1.0	1.4	4.5	1.4
2. Couldn't get along with students	3.5	0.1	4.9	2.4
Health-related				
1. Illness or disability	2.7	2.9	2.1	1.0
Other				
1. Offered job and chose to work	24.8	19.0	6.3	13.6
2. Wanted to enter military	3.2	11.8	5.6	0
3. Moved too far from school	4.1	4.9	3.5	2.5
4. Wanted to travel	3.7	1.4	3.5	14.0
Sample size	62	58	58	41

who was not attending school, and had not yet graduated, two years later. Table 1A is from a paper by Peng and others (1983). It shows the weighted percentage of dropouts from public and private schools who cite each reason for leaving. Respondents could cite more than one reason. Table 1B is a parallel analysis of data from California students only.

Overall, the single most common reason for dropping out was "School was not for me; I did not like school." In California, this was the reason most often stated by white males and females, and by minority females. Among minority males it was third. Nationally, poor grades were a more common reason among minority dropouts, marriage or pregnancy were more common reasons for females, and minority males more often gave economic reasons. This is similar to the pattern of reasons found by Rumberger (1983) in his analysis of data from the 1979 National Longitudinal Survey of Youth Labor Market Experience. In that survey, among dropouts who were 14 to 21 years old, the reason most often given as the primary cause for leaving was that they "disliked school."

Dropping out, for some students, appears to be a response to the same dissatisfaction with school that many students feel, but which the dropouts feel more intensely or to which they respond more dramatically. Rather than cloaking themselves in apathy and looking to friends to make school life interesting, as many other students do, the dropouts simply leave.

Even before they leave, their more negative response to school is evident. Table 2 displays attitudes toward school measured by the 1980 HS&B survey. On the whole, California sophomores express similar attitudes to those stated by sophomores nationwide, except that more of the California sample say they occasionally cut a class. The biggest differences in attitudes are between the sophomores who became dropouts two years later and those who did not. The future dropouts expressed less satisfaction and interest in school, reported more disciplinary problems and class-cutting, and felt less safe in

Table 2. Attitudes toward school, public and private school students, 1980 High School and Beyond survey: percentages.

		1980 U.S. sophomores*	1980 California sophomores**			1980 California seniors**
			total	dropouts	non-dropouts	
		(n=27,118)	(n=2,739)	(n=256)	(n=2,483)	(n=1,362)
I am satisfied with the way my education is going.	true	62.7	60.7	41.2	64.4	57.3
	false	31.7	34.2	49.8	31.3	40.4
	missing	5.6	5.1	9.0	4.4	2.3
I have had disciplinary problems in school during the last year.	true	17.4	18.6	29.7	16.5	11.9
	false	76.7	75.6	58.6	78.8	84.9
	missing	6.0	5.8	11.7	4.7	3.2
I am interested in school.	true	72.9	74.4	59.1	77.3	70.5
	false	20.7	19.5	28.9	17.8	26.4
	missing	6.4	6.1	12.0	5.0	3.1
I have been suspended or put on probation in school.	true	10.8	10.1	17.3	8.8	10.1
	false	83.1	83.6	70.9	86.0	86.7
	missing	6.1	6.3	11.7	5.2	3.2
Every once in a while I cut a class.	true	26.0	36.0	57.7	31.9	52.4
	false	67.9	58.1	31.7	63.1	44.5
	missing	6.1	6.0	10.6	5.1	3.1
I don't feel safe at this school.	true	10.8	10.0	16.4	8.8	7.3
	false	82.9	83.8	73.0	85.9	89.0
	missing	6.4	6.2	10.6	5.3	3.6

*Percentages based on unweighted data. Source: Jones and others, 1983, pp. 8-47, 8-48.

**Percentages based on data weighted by base-year sampling weight.

Table 3. Feelings about life, public and private school sophomores, 1980 High School and Beyond survey (percentages)

During the past few weeks, did you ever feel...		1980 U.S. sophomores* (n=27,118)	1980 California sophomores**		
			total (n=2,739)	dropouts (n=256)	non-dropouts (n=2,483)
particularly excited or interested in something?	never	3.9	3.1	5.0	2.7
	once	15.3	16.7	21.7	15.8
	several times	45.2	43.9	39.8	44.4
	a lot	30.3	31.3	25.3	32.5
	missing data	5.3	4.9	8.2	4.3
so restless that you couldn't sit long in a chair?	never	22.3	23.4	20.7	23.9
	once	24.1	25.5	25.4	25.5
	several times	34.8	33.8	35.6	33.5
	a lot	12.9	12.0	10.2	12.3
	missing data	5.9	5.4	8.0	4.9
proud because someone complimented you on something you had done?	never	10.9	11.9	18.8	10.7
	once	29.2	27.8	24.7	28.4
	several times	42.9	43.4	41.5	43.8
	a lot	10.7	10.9	6.8	11.7
	missing data	6.3	5.9	8.2	5.4
very lonely or remote from other people?	never	34.8	36.3	35.3	36.5
	once	32.4	33.2	23.8	34.9
	several times	19.6	17.8	20.3	17.3
	a lot	6.4	6.2	8.9	5.7
	missing data	6.8	6.5	11.8	5.6
pleased about having accomplished something?	never	7.2	7.6	11.0	6.9
	once	23.8	23.4	24.7	23.2
	several times	49.1	49.2	44.5	50.1
	a lot	13.3	13.3	8.3	14.2
	missing data	6.7	6.6	11.5	5.7
bored?	never	13.0	12.4	13.2	12.2
	once	24.9	26.5	22.2	27.4
	several times	37.2	39.3	36.5	39.9
	a lot	18.6	15.0	15.5	14.9
	missing data	6.3	6.8	12.6	5.7
on top of the world?	never	31.6	33.0	33.6	32.9
	once	24.9	24.6	19.8	25.5
	several times	26.5	25.4	24.7	25.6
	a lot	10.2	10.0	11.1	9.8
	missing data	6.8	7.1	10.9	6.3
depressed or very unhappy?	never	23.3	26.0	25.1	26.2
	once	37.3	37.5	36.2	37.8
	several times	24.7	23.2	21.6	23.5
	a lot	8.1	6.5	8.1	6.2
	missing data	6.6	6.8	9.1	6.4
that things were going your way?	never	10.0	9.8	12.8	9.2
	once	25.4	24.7	23.2	25.0
	several times	47.4	47.1	43.7	47.8
	a lot	10.3	11.1	10.3	11.2
	missing data	6.9	7.3	10.1	6.8
upset because someone criticized you?	never	38.7	41.4	41.5	41.3
	once	34.4	32.8	25.8	34.1
	several times	16.1	14.9	17.3	14.4
	a lot	4.3	4.1	4.5	4.0
	missing data	6.5	6.9	10.8	6.1

*Percentages based on unweighted data. Source: Jones and others, 1983, pp. 8-45 to 8-47.

**Percentages based on data weighted by base-year sampling weight.

Table 4. Values of public and private school sophomores, 1980 High School and Beyond survey: percentage saying "very important."

How important is each of the following to you in your life?	1980 U.S. sophomores*	1980 California sophomores**			1980 California seniors**
		total	dropouts	non-dropouts	
Being successful in my line of work.	81.8	84.4	80.9	85.1	86.8
Finding the right person to marry and having a happy family life.	80.1	80.7	75.7	81.6	77.0
Having lots of money.	32.9	37.5	43.7	36.4	32.2
Having strong friendships.	77.7	80.3	76.4	81.0	80.8
Being able to find steady work.	80.2	80.7	75.1	81.8	80.2
Being a leader in my community.	10.0	8.1	11.1	7.6	7.1
Being able to give my children better opportunities than I've had.	69.7	69.2	70.6	68.9	66.0
Living close to parents and relatives.	20.6	22.2	18.7	22.9	14.0
Getting away from this area of the country.	13.2	11.6	16.1	10.8	10.6
Working to correct social and economic inequalities.	14.0	13.9	12.8	14.2	13.1
Having children.	39.5	40.2	39.4	40.4	36.9
Having leisure time to enjoy my own interests.	67.0	69.4	68.9	69.5	69.5

*Percentages based on unweighted data. Source: Jones and others, 1983, pp. 8-41 to 8-43.

**Percentages based on data weighted by base-year sampling weights.

Table 5. Time spent on homework and watching television, public and private school sophomores, 1980 High School and Beyond survey: percentages.

	1980 U.S. sophomores*	1980 California sophomores**			1980 California seniors**
		total	dropouts	non-dropouts	
Homework: hours per week	(n=27,118)	(n=2,739)	(n=256)	(n=2,483)	(n=1,362)
none assigned	2.1	3.2	11.6	1.6	4.3
don't do it	4.3	3.9	5.4	3.6	3.7
less than 1 hr.	13.3	11.7	14.3	11.2	16.0
1-3 hrs.	27.5	26.2	37.3	24.1	26.6
3-5 hrs.	23.8	24.4	16.4	25.9	23.4
5-10 hrs.	21.0	21.9	9.8	24.2	17.3
more than 10 hrs.	6.9	7.6	3.5	8.4	8.0
missing data	1.1	1.0	1.6	1.0	0.6
TV: hours per day during weekdays					
none	2.4	3.0	3.5	2.9	
less than 1 hr.	6.5	9.3	7.3	9.7	
1-2 hrs.	13.0	15.9	11.7	16.7	
2-3 hrs.	19.2	20.9	22.7	20.6	
3-4 hrs.	17.8	15.6	16.8	15.3	
4-5 hrs.	12.7	11.7	11.1	11.9	
5 or more hrs.	26.4	21.5	23.9	21.0	
missing data	2.0	2.1	3.0	2.0	

*Percentages based on unweighted data.

**Percentages based on data weighted by base-year sampling weight.

school than their fellow sophomores who did not drop out. Before they leave, dropouts are clearly unhappier in school than other students.

But dropouts are nearly as happy as other students outside of school. Table 3 shows that California sophomores who later dropped out reported only slightly higher frequency of negative feelings like boredom, loneliness, and depression, and only slightly lower frequency of positive feelings like excitement and pride, compared to sophomores who did not drop out. The differences between dropouts and non-dropouts in feelings about life in general are much smaller than the differences in feelings about school. Similarly, Table 4 shows only small differences in stated values. These data do not support the simple view that students who drop out are generally troubled, anti-social, or sick. Apparently they have more trouble with school than with life in general.

Table 5, showing time spent on homework and watching television, also indicates that the difference between dropouts and non-dropouts is more pronounced in school-related behavior than in other behavior. The percentage of future dropouts who, as sophomores, did at least five hours of homework a week was less than the percentage who did no homework at all. In contrast, among non-dropouts there were six times more who did at least five hours of homework a week than did none at all. But the contrast between the two groups in time spent watching television is not nearly as great. Among dropouts the percentage who watch at least four hours a day is a little more than three times the percentage who watch less than an hour or not at all; among non-dropouts it is a little less than three times.

In sum, many students are apathetic about the content of school work. The fact that only a minority drop out before graduating does not imply that the dropouts are all pathological. Sophomores who later drop out are more negative about school than sophomores who stay two more years. But Tables 2 and 5 show that in some ways -- reported class-cutting and time spent on homework, expressed satisfaction and interest in school -- sophomores who later drop out are more like seniors than they are like sophomores who do not drop out. This suggests that sophomores who stay in high school may, by the time they are seniors, share more of the negative feelings that dropouts develop earlier.

Why Dropping out is a Problem

If high school classes are largely irrelevant and unproductive for many students, what is wrong with dropping out? We see several problems. First, many dropouts are not ready for the responsibilities of work, independent living, marriage and parenthood, or citizenship. They may be functionally illiterate, unable to do numerical computations, and unskilled in acquiring information or solving problems. Their lack of competence will handicap them and also will impose a burden on the rest of society. If finishing high school will make them competent, they should finish high school.

On the other hand, some people may gain sufficient competence without finishing high school. If competence is the only concern, no one should leave school without it, and everyone should be free to leave as soon as she/he acquires it. In reality, there are other concerns, including cost and the limits of legal compulsion, which make it impossible to guarantee that everyone leaving high school will be competent. As for those who become competent before completing all the courses required for graduation, California already has an early-leaving option, the California High School Proficiency Examination. This will be discussed further below.

A second reason why dropping out is a problem is that the high school diploma has some value purely as a credential. In addition to the actual difference in capability between high school graduates and dropouts on average, having a high school diploma makes one a member of a group which is assumed to be more competent than high school dropouts (Spence, 1974). In particular, employers sometimes hire less competent high school graduates ratherthan more competent individuals who are high school dropouts, because employers cannot easily measure competence directly, and because high school graduates on average perform better than dropouts. We will present some evidence about the credential value of a high school diploma for the California HS&B sample.

The third reason why dropping out is a problem is that it is still correlated with characteristics of students that they cannot control. As we will show, these characteristics include race and ethnicity, socioeconomic background, frequency of moving from one school to another, and whether the father is present at home. It is unfair that certain groups of students are more likely to miss the benefits of finishing high school in part for reasons beyond their individual control. Public policy for high schools must aim to achieve not only excellence and relevance, but also fairness.

Who drops out. Previous studies (Rumberger, 1983; Peng and others, 1983) have found that, among the major racial or ethnic groups nationwide, Hispanics and blacks have higher dropout rates than whites. This national pattern also occurs in California, as shown in the third column of Table 6. Among the class of 1982 as a whole, the statewide attrition rate from grade 10 to grade 12 was 18.3 percent in public schools. It was 28.8 percent and 27.7 percent for Hispanics and blacks, respectively, but only 15.3 percent among whites.

Strictly speaking, attrition rates are not the same as dropout rates. Attrition is the loss in enrollment from a given age cohort between two points in time, within a given geographic area. It includes net out-migration, which may be large for small geographic areas such as school districts. But for a large state like California, or for the U.S. as a whole, net out-migration is probably a very small part of attrition, so attrition rates can be treated as dropout rates.

The 18.3 percent attrition between grade 10 and grade 12 for the California public school class of 1982 is more than half of the 31.1 percent total attrition rate for the class of 1982 from grade 9 through graduation. Nationwide, the total high school attrition rate (grade 9 through graduation) for the class of 1982 was 27.2 percent (Education Week, January 9, 1985, p. 13). Total high school attrition rates are larger than attrition rates from grade 10 to grade 12 because they also include attrition between grades 9 and 10 as well as twelfth graders who do not graduate. But most dropping out occurs between grades 10 and 12.

Table 6 also displays public school dropout rates for the class of 1982 between grades 10 and 12 measured by the HS&B survey. In computing these percentages, and in all subsequent analyses, the data were weighted by the 1982 sampling weights. The fourth column shows that dropout rates measured by HS&B are lower for blacks and Hispanics, and higher for whites and "others," than the attrition rates computed from state enrollment data. Apparently there was some bias in the HS&B sample of dropouts, causing blacks and Hispanics to be under-represented, and Whites and "others" to be over-represented. The last two columns show the resulting difference in the estimated racial/ethnic composition of this dropout population. The sampling bias appears to have had its biggest effect on reducing the estimated proportion of dropouts who are black, because HS&B not only under-estimated the dropout rate among blacks but also under-represented blacks in the 1980 base-year sample of sophomores.

It is conceivable that the HS&B figures are right and the state attrition figures are not accurate measures of dropout rates. For instance, it is

Table 6. California public school dropouts by race/ethnicity, grade 10 to grade 12, from State Department of Education data and High School and Beyond survey: percentages.

	Percent of grade 10 enrollment in California public schools, 1979-80		Dropout rate, grade 10 to grade 12		Percent of dropouts	
	SDE	HSB	SDE[2]	HSB[3]	SDE	HSB
Hispanic	19.4	22.3	28.8	22.3	30.6	26.8
Black	10.4	7.9	27.7	13.9	15.7	6.4
White	63.8	60.6	15.3	17.5	53.5	62.4
Other[1]	6.5	9.2	0.5	8.2	0.1	4.4
All students[4]	100.1	100.0	18.3	17.0	99.9	100.0

---

[1] "Other" includes Filipino, other Asian and Pacific Islander, and American Indian.

[2] Difference between grade 10 enrollment in 1979-80 and grade 12 enrollment in 1981-82, as percentage of grade 10 enrollment in 1979-80. Source: California State Department of Education.

[3] Number of 1980 sophomores not enrolled in school in 1982 (excluding early graduates), as percentage of number of 1980 sophomores.

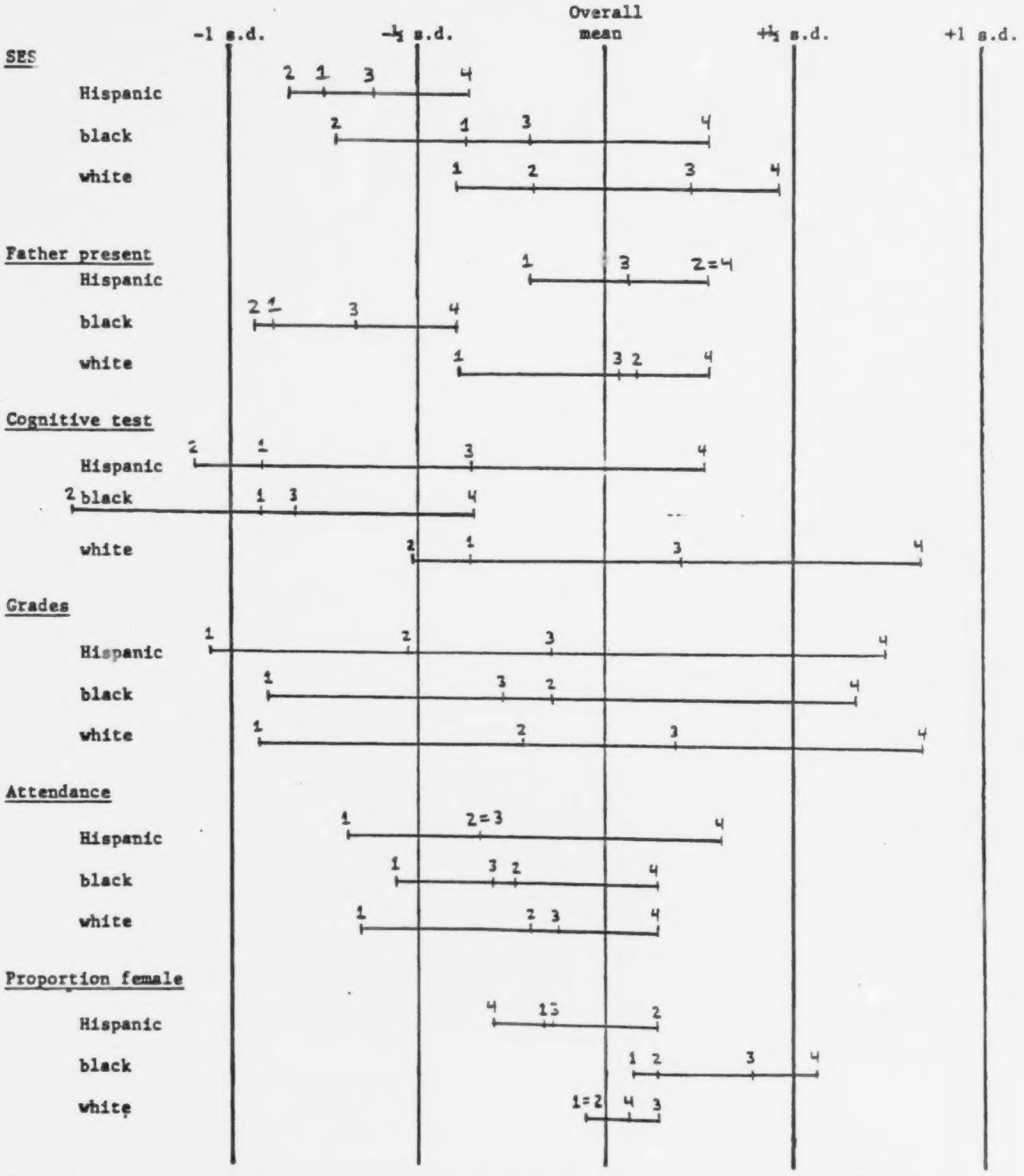
[4] Percentages may not add to 100.0, due to rounding.

conceivable that some 10 or 15 percent of the black and Hispanic sophomores transferred either to out-of-state schools or to private schools in California. In fact, the HS&B data reveal that 18 percent of the black sophomores did transfer to another high school between 1980 and 1982, compared to 12 percent of Hispanics and seven percent of whites. However, most transfers are to other public schools within the state. The higher transfer rate for black sophomores can therefore explain some, but not most, of the difference between statewide attrition and HS&B dropout rates. The remaining difference is attributable in part to some black sophomores reporting their race as American Indian -- "American Indians" are a larger percentage of the HS&B sample than of the statewide enrollment -- and in part to sampling error. Given the result that the HS&B dropout sample in California is biased by race/ethnicity, subsequent analyses will be done separately for whites, blacks and Hispanics.

Another reason for analyzing HS&B dropout data separately for whites, blacks, and Hispanics was given by Hirano-Nakanishi. Using the 1976 Survey of Income and Education, she showed that a large proportion of Hispanic dropouts leave school before they even reach tenth grade. She argues that this can invalidate comparisons between Hispanic and other dropout rates after tenth grade. However, she finds that the HS&B "California sample is relatively close to full representation" of Hispanic dropouts, because fewer Hispanic dropouts in California than in other states leave before tenth grade (pp. 16-17).

Chart 1 compares dropouts with graduates. More precisely, it uses HS&B data to compare California public high school dropouts (i.e., students who were sophomores in 1980 but were not in school in 1982 and had not graduated), with California public high school students who were seniors in 1980 and had

Chart 1. Characteristics of California public high school dropouts, and graduates by college attendance, by race/ethnicity.



Key: 1 = dropouts, 2 = graduates never enrolled in postsecondary school, 3 = graduates most recently in 2-year college, 4 = graduates most recently in 4-year college.

graduated by 1982. The graduates here are divided into three groups: those who had never (through February, 1982) been enrolled or taken classes in a civilian postsecondary school of any kind; those who had most recently attended a two-year junior or community college; and those who had most recently attended a four-year college or university. This classification omits those graduates (about 10 percent) who had most recently attended a vocational trade school or whose enrollment status is unknown. This classification of graduates also ignores the various possible patterns of delay and transfer among types of postsecondary institution (see Campbell and others, 1984).

Chart 1 displays mean characteristics of the four groups along a scale centered at the overall mean for all 1980 sophomore dropouts and all 1980 senior graduates combined. Distances between the four group means are compared to the standard deviation among individuals in the whole group consisting of dropouts and all graduates combined. Estimated standard deviations of the group means would be much smaller: from .07 to .27 times the individual standard deviation, depending on the size of the particular group. The unweighted numbers of Hispanics in groups 1, 2, 3 and 4 (see Key in Chart 1) are 96, 95, 202 and 47, respectively; the numbers of blacks, in the same order, are 14, 25, 54 and 30; and the numbers of whites are 99, 71, 197 and 77.

The first characteristic compared in Chart 1 is socioeconomic status, SES. This is an index computed for each student as the average of five components: father's occupation (Duncan SEI scale), father's and mother's education, family income, and an index of reading materials and other possessions in the student's home (Jones and others, 1983, pp. 62-64). The five components were each separately standardized before being averaged to form the SES index, so that all components have approximately equal weight.

Chart 1 shows that high school dropouts on average come from families with lower SES than the families of students who graduate. This is consistent with other statistical studies of dropouts (Rumberger, 1983; Peng and others, 1983; Mare, 1980; Hill, 1979; Bachman and others, 1971). It is interesting that, among Hispanics and blacks, high school graduates who attend no postsecondary school have lower average SES than the dropouts. However, we should not attach too much importance to this, given the small number of black dropouts and possible unknown bias in the sample.

Dropouts are less likely than graduates to be living with their fathers. They are therefore more likely to lack both the material and the psychological support that fathers may provide. Like SES, absence of a father at home is a strong correlate of dropping out that students cannot control. Another predetermined characteristic, gender, does not appear in Chart 1 to be strongly correlated with dropping out.

Chart 1 also displays three variables that are to some degree controllable by students: attendance, grades and test scores. Of these, attendance is probably most controllable by students. It was measured by the HS&B survey simply by asking students how many days between fall and Christmas, 1979, they had been absent for reasons other than illness. Dropouts clearly reported more of such absences. They also reported lower grades so far in high school. Not surprisingly, high school grades and attendance correlate strongly with how long students stay in school.

The cognitive test index is each student's average standardized score on tests of reading, vocabulary and math. Sophomores and seniors took different tests, but the index was constructed to have a nearly identical distribution among sophomores and seniors (Jones and others, 1983, p. 62). Since these are achievement tests, they reflect innate abilities and environmental influences

Table 7. Characteristics of 1980 HS&B sophomores who had or had not dropped out in 1982 from California public schools, by number of dropouts each school contributed to HS&B sample.

		Number of dropouts in sample from school				
		0	1	2	3	4+
percentage living with father	non-dropouts	67.85	74.86	72.44	72.75	65.30
	dropouts		64.93	48.84	50.65	44.36
mean mobility index (changed schools since 5th grade)	non-dropouts	1.78	1.83	2.05	1.71	1.79
	dropouts		2.87	2.76	1.90	2.23
mean baseyear test composite	non-dropouts	51.72	52.21	50.53	51.36	49.78
	dropouts		50.04	47.88	44.92	43.22
mean index of high school grades	non-dropouts	3.52	3.36	3.67	3.41	3.55
	dropouts		4.49	4.77	5.27	4.91
mean index of absenteeism	non-dropouts	2.35	2.24	2.32	2.18	2.45
	dropouts		3.96	3.63	3.50	3.55
mean SES	non-dropouts	.16	.23	.13	.11	-.26
	dropouts		-.17	-.46	-.17	-.55
percentage female	non-dropouts	47.84	46.58	51.39	53.81	49.71
	dropouts		61.97	65.2	48.59	25.48
percentage Black	non-dropouts	8.56	9.36	14.15	6.28	4.85
	dropouts		3.83	5.69	11.84	3.70
percentage Hispanic	non-dropouts	21.68	15.22	26.65	22.98	44.99
	dropouts		8.51	17.11	18.70	56.77
percentage who have taken concentrated voc. ed.	non-dropouts	31.95	33.28	30.90	48.28	38.14
	dropouts		19.33	19.35	30.25	14.74
percentage who have participated in alternative programs	non-dropouts	3.20	3.88	3.33	5.38	6.07
	dropouts		4.57	.83	2.03	4.82
number of students: unweighted	non-dropouts	415	430	497	364	274
weighted		50,409	57,745	45,651	40,441	23,331
unweighted	dropouts	0	22	48	51	82
weighted		0	4,642	10,788	15,095	14,038

as well as how much effort students put into both schoolwork and this particular test-taking exercise itself. Dropouts scored lower than graduates who went to college, but higher than graduates who never attended postsecondary classes. Evidently dropouts as a group are not at the very bottom of the test distribution.

Another way to answer the question, "Who drops out?" is to compare 1980 sophomores who dropped out with 1980 sophomores who did not. We made this comparison, using a multivariate logit model. This allows the influence of each predictor to be estimated with the other predictors statistically controlled. Among whites, dropouts were significantly more likely to be from low SES families, and also were likely to have changed schools more often because they or their families had moved. Changing schools was also significantly associated with dropping out among Hispanic females. (Seniors were not asked the question about changing schools, so this variable does not appear in Chart 1.) Among whites, dropouts also had significantly worse attendance and, among males, worse grades. White males were significantly more likely to drop out if their fathers were absent, as were Hispanic males. Poor attendance was significantly associated with dropping out among both male and female Hispanics. Poor grades were a statistically significant predictor of dropping out for black males and Hispanic females. All these results are consistent with Chart 1, though not all the differences in Chart 1 were statistically significant in the multivariate logit analysis.

Finally, 1980 sophomores were divided into groups according to how many dropouts had been found at their school in the HS&B sample. The purpose is to see how much of the difference between dropouts and non-dropouts can be attributed to differences among schools, as opposed to differences among students within schools. For instance, does the difference between the average SES of dropouts and non-dropouts mean that schools with low average

SES have more dropouts, or that in any school it is the students with lower SES who tend to drop out -- or both? The answer, in general, is some of both, as Table 7 shows. In schools with more dropouts, both the dropouts and the non-dropouts tend to have lower SES and lower test scores, and larger percentages are Hispanic. Within all categories of schools -- both those that contributed more dropouts to the HS&B sample and those that contributed fewer -- the dropouts were less likely to be living with their fathers, had changed schools more often, scored lower than non-dropouts on the HS&B test battery, reported lower grades (a high number in Table 7 means low grades), were more often absent for reasons other than illness, and had lower SES. This comparison suggests that dropping out is more strongly and consistently related to characteristics of individual students than to differences between schools. Where differences between high-dropout and low-dropout schools do exist, they are usually in the same direction as the differences between students who do and do not drop out.

Table 7 does show a couple of interactions between school and individual characteristics. In schools with fewer dropouts, the sophomores who do not drop out are more likely to be male and Hispanic. But in schools with more dropouts, it is the dropouts who are more likely to be male and Hispanic. Apparently, male dropouts and Hispanic dropouts tend to concentrate in schools where the numbers of dropouts are greatest.

Disadvantages of dropping out. The correlation of dropping out with characteristics that students cannot control implies that dropping out cannot be considered a free and unconstrained choice on the part of individual students. What makes this problematic is that leaving high school without a diploma does put these individuals at a disadvantage.

The first obvious disadvantage is that high school dropouts are much less likely than graduates to continue in school. Some do take the GED examination, and in California it is possible to enter community college at age 18 even without a high school diploma. But Table 8 shows that, in the short run at least, hardly any of the 1980 sophomores who had dropped out were taking college courses two years later. (Tables 8-12 include students who were in private as well as public schools in 1980.)

Furthermore, there is abundant evidence that individuals who never acquire a high school diploma are at a permanent disadvantage in the labor market. In March, 1982 the overall unemployment rate for the civilian work force age 16 and over was 9.7 percent, but for those with only one to three years of high school the unemployment rate was 18.1 percent -- almost twice the average (Statistical Abstract of the U.S. 1984, Table 680). Annual earnings of men age 25 and older who had finished only one to three years of high school were just 71 percent of average earnings for all men that age in 1981. This was down sharply from 86 percent only ten years earlier. Fifteen years before that, in 1956, annual earnings of men age 25 and older who had one to three years of high school were 99 percent of the average of all men in that age group (Grant and Snyder 1983, p. 191). This indicates that the labor market disadvantage of dropouts has grown at an accelerating rate in the past 30 years. The evident reason is the rapid increase in the proportion of workers with high school diplomas or more. In 1959 only a minority of the civilian labor force age 16 and older were high school graduates. But by 1970 the proportion with diplomas had reached almost two-thirds, and in March, 1982 it exceeded 78 percent (Statistical Abstract of the U.S. 1984; U.S. Bureau of Labor Statistics, 1975). As workers without high school diplomas have become a smaller minority, they have been increasingly stigmatized.

Early indications of dropouts' difficulties in the labor market appear in Tables 8-12 and Chart 2. Among individuals who were participating in the

Table 8 : "What were you doing the first week of February 1982? (MARK ALL THAT APPLY)"

Responses by 1980 sophomore dropouts and 1980 seniors in Spring 1982, High School and Beyond survey, California data: percentages.

ACTIVITY	1980 SOPHOMORE DROPOUTS		1980 SENIORS			
			Not now in 4-yr college		Now in 4-yr college	
	Male	Female	Male	Female	Male	Female
Working for pay at a full-time or part-time job	50.6	51.1	67.2	65.2	37.1	35.6
Taking academic courses at a two or four-year college	5.1	6.4	41.6	34.8	98.5	93.5
Looking for work	24.9	13.0	9.8	13.6	1.3	1.3
Sample size	149	133	487	546	121	156

Table 9: Hours per week on current or most recent job in Spring 1982, by 1982 sophomore dropouts and 1980 seniors, High School and Beyond survey, California data: percentages.

HOURS PER WEEK	1980 SOPHOMORE DROPOUTS		1980 SENIORS			
			Not now in 4-yr college		Now in 4-yr college	
	Male	Female	Male	Female	Male	Female
Less than 4	1.9	1.2	1.7	1.0	0.3	0.3
5-14	8.5	10.7	7.2	10.0	17.1	14.0
15-21	6.3	9.3	12.7	15.6	33.3	34.3
22-29	8.4	19.2	7.5	9.9	5.6	16.3
30-34	11.6	11.9	9.6	5.9	11.7	4.5
35-40	20.5	32.6	35.0	44.5	20.6	21.1
41 or more	17.8	7.4	14.0	4.8	7.9	0.8
Missing data or not employed	25.0	7.7	11.2	8.4	3.6	8.6
Sample Size	149	133	487	546	121	156

0: Hourly pay on current or most recent job in Spring 1982, for 1980 sophomore dropouts and 1980 seniors, High School and Beyond survey, California data: percentages.

Y PAY	1980 SOPHOMORE DROPOUTS		1980 SENIORS			
			Not now in 4-yr college		Now in 4-yr college	
	Male	Female	Male	Female	Male	Female
than $2.00	6.1	1.8	16.8	13.9	13.0	6.4
0 - 2.49	1.2	1.9	0.9	0.1	0.0	0.3
0 - 2.89	0.8	3.0	0.2	0.2	0.0	0.0
0 - 3.34	4.8	7.8	1.3	3.7	0.4	0.8
5 - 3.89	25.4	38.4	11.2	26.8	26.0	27.8
0 - 4.49	15.3	21.5	10.5	16.9	9.5	21.3
0 - 4.99	3.7	4.4	9.4	8.2	4.0	11.6
0 - 5.49	20.9	7.8	7.4	9.3	22.1	9.0
0 - 5.99	0.9	0.5	5.2	3.0	5.9	2.0
0 - 6.49	1.8	2.4	5.4	1.8	3.5	3.4
0 - 6.99	2.4	4.5	2.1	1.5	0.3	0.3
0 - 7.49	0.8	0.0	4.5	0.3	0.6	3.4
0 or more	3.1	1.4	9.8	2.3	8.3	1.1
ng data or employed	12.9	4.5	15.3	12.1	6.4	12.6
e size	149	133	487	546	121	156

Table 11: Subjective characteristics of current or most recent job in Spring 1982, for 1980 sophomore dropouts and 1980 seniors, High School and Beyond survey, California data: percentages.

IN DESCRIBING YOUR PRESENT OR MOST RECENT JOB, WOULD YOU SAY IT IS...	1980 SOPHOMORE DROPOUTS		1980 SENIORS			
			Not now in 4-yr college		Now in 4-yr college	
	Male	Female	Male	Female	Male	Female
A place where people goof off?						
YES	4.9	14.8	11.7	11.1	21.9	8.4
NO	62.1	72.1	56.9	63.2	57.3	66.1
Missing data or not employed	33.0	13.2	31.4	25.6	20.8	25.5
Something you do just for the money?						
YES	36.3	50.5	Not asked		Not asked	
NO	34.4	31.7				
Missing data or not employed	29.4	17.8				
More enjoyable than school?						
YES	35.1	66.3	33.9	37.9	26.0	21.5
NO	32.0	16.7	31.6	34.4	54.7	51.7
Missing data or not employed	33.0	17.0	34.5	27.7	19.2	26.9
Encourages good work habits?						
YES	52.6	58.9	63.5	72.6	62.5	64.4
NO	13.7	23.9	11.7	11.1	28.9	13.8
Missing data or not employed	33.7	17.1	24.8	16.2	8.6	21.8
More important for you than school?						
YES	23.4	29.0	Not asked		Not asked	
NO	38.3	53.9				
Missing data or not employed	38.2	17.1				
Sample size	149	133	487	546	121	156

Table 12: Kind of work on current or most recent job in Spring 1982, for 1980 sophomore dropouts and 1980 seniors; High School and Beyond survey, California data: percentages.

ACTIVITY	1980 SOPHOMORE DROPOUTS		1980 SENIORS			
			Not now in 4-yr college		Now in 4-yr college	
	Male	Female	Male	Female	Male	Female
Lawn or odd jobs	8.3	0.6	0.0	0.0	0.0	0.0
Restaurant job	18.9	23.2	7.5	6.6	17.4	12.5
Child care	0.0	4.4	0.1	0.7	2.4	3.7
Farm work	10.7	1.2	2.9	1.3	1.0	0.0
Factory work	10.0	5.7	2.2	4.5	2.8	0.6
Skilled trade	4.8	7.5	17.7	3.7	11.7	3.6
Other manual labor	15.5	10.8	19.1	3.7	14.8	2.8
Sales	1.5	20.7	6.6	14.0	7.2	16.9
Office, clerical	0.0	9.5	16.6	45.0	22.1	40.8
Hospital, health	0.8	0.6	0.9	3.3	0.1	2.1
Gas, car wash	5.8	3.8	1.8	0.2	0.0	0.0
Delivery jobs	1.0	0.4	2.4	2.5	7.5	0.2
Military	7.3	0.0	6.4	0.1	0.0	0.0
Other	4.6	5.8	9.4	6.1	10.1	5.3
Missing data or not employed	10.9	5.8	6.2	8.3	2.8	11.4
Sample size	149	133	487	546	121	156

labor force -- i.e., were either working for pay or looking for work -- the figures in Table 8 imply unemployment rates for dropouts of 33 and 20 percent for males and females, respectively. The male and female unemployment rates for 1980 seniors not in four-year college were 13 and 17 percent, respectively. Especially among males, recent dropouts were having a much harder time finding work.

The disadvantages of recent dropouts relative to recent graduates partly reflect the fact that the dropouts are younger. But this does not make the comparison inappropriate. To the contrary, the simple fact of the matter is that students who drop out must compete against recent graduates who are older. This is a real part of the immediate disadvantage dropouts face.

In the 1982 follow up survey about half the dropouts said they already had a job lined up before they left school, and about half of those said they were already working on that job before they left. These dropouts did experience less unemployment than the others. A logistic regression of unemployment on these variables, controlling for SES, gender, and test scores, showed that dropouts who were already working or had a job lined up before they left school were about 20 percent less likely to be unemployed in 1982. In spite of that, the overall unemployment rate among dropouts was considerably higher than among recent graduates, as Table 8 showed.

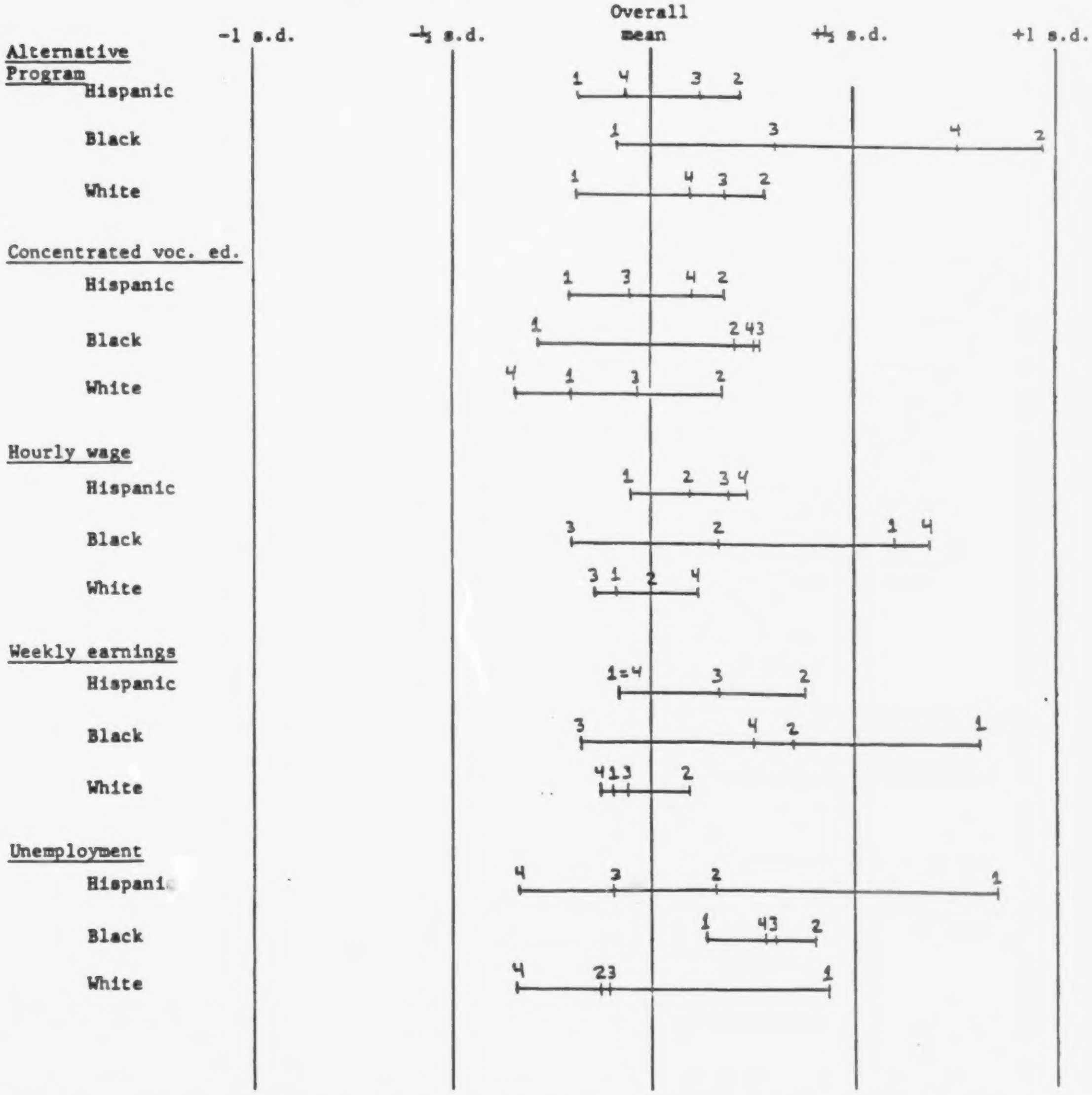
If they do succeed in finding work, dropouts do almost as well as recent graduates (not in four-year college) in terms of hourly wages and number of hours worked per week. Tables 9 and 10 show median hours and wages for unemployed dropouts were nearly the same as for recent graduates. Table 11 also shows little difference between dropouts' and graduates' appraisal of whether their jobs permit "goofing off" or encourage good work habits.

But Table 11 also shows something of the dropouts' dilemma. More dropouts agree than disagree that their work is "more enjoyable than school." Not surprisingly, the margin among dropouts is greater than among graduates not in four-year college, and among employed graduates who are attending four-year college the margin is reversed, with only a small proportion agreeing that their (part-time) jobs are more enjoyable than school. The dilemma for dropouts, however, is that most of them say that their work is _not_ "more important" than school. Even though they disliked school so much that they dropped out, and even though most of them enjoy work more than school, these youngsters continue to assert the importance of education. This pattern of responses in California is the same as the national pattern, and is consistent with the 1982 response by most dropouts, both in California and nationwide, that leaving school was _not_ a "good decision" for them (Jones and others, 1983, pp. 8-160, 8-167). Dropouts _know_ they have put themselves at a disadvantage.

Further evidence of the dropouts' disadvantage in the job market is in Table 12, which shows the kind of work dropouts and graduates were doing in 1982. Compared to the high school graduates who were not in four-year college, dropouts were far less likely to hold office or clerical jobs, and they were less often employed in skilled trades. The dropouts were more often working in restaurants or factories, on farms, or in odd jobs. It appears that more dropouts hold jobs that lack physical amenity, demand less skill, and probably offer less opportunity for advancement.

Chart 2 compares the 1982 labor market experience of white, black and Hispanic graduates and dropouts. As in Chart 1, distances beteen group means are compared to the standard deviation of each variable in the combined sample of dropouts and grduates. As in Tables 8-12, the biggest difference between dropouts and graduates is in the rate of unemployment, among those in the labor force. Among those who have jobs, dropouts earn almost as much per hour

Chart 2. Program participation and early labor market outcomes of California public high school dropouts, and graduates by college attendance, by race/ethnicity.



Key: 1 = dropouts, 2 = graduates never enrolled in postsecondary school, 3 = graduates most recently in 2-year college, 4 = graduates most recently in 4-year college.

or per week as graduates. Indeed, black dropouts were actually earning more money, and also experiencing less unemployment, than black graduates. This may be due to the peculiarities of the HS&B sample of black dropouts in California, as discussed above. But such anomalies sometimes also crop up in national data: for instance, the official unemployment rate among blacks 25 to 64 years old in 1982 was 16.4 percent for high school graduates with no further schooling, but only 14 percent for those with one to three years of high school, and 15 percent for those who had not completed more than eight years of school (Bureau of Labor Statistics, Aug. 28, 1983). A high school diploma by itself may in fact confer a smaller or less consistent advantage to blacks than to whites or Hispanics.

Despite this exception, dropouts on average do fare worse than high school graduates in the labor market. But is this difference due to lack of a complete high school education itself, or is it attributable to the lower SES, lower academic achievement, and other characteristics associated with dropping out in the first place? Our results, reported in Table 13, indicate that the lack of a complete high school education often does make a substantial difference, apart from the dropouts' prior characteristics. Using the data on high school *graduates* who had never enrolled in postsecondary school as of 1982, we used ordinary least squares regression to fit a predictive equation of the form,

$$Y_i = b_o + b_1 x_{1i} + b_2 x_{2i} + b_3 x_{3i}$$

where Y_i = predicted or expected hourly wage for student i,
X_{1i} = SES of student i,
X_{2i} = achievement test index of student i, and
X_{3i} = sex of student i, coded 0 or 1.

Table 13 Labor market outcomes in 1982 for public high school graduates never enrolled in postsecondary school, for public high school dropouts, and for dropouts if treated as graduates, by racial/ethnic group; High School and Beyond survey, California data.

	Graduates	Dropouts	Dropouts if treated as Graduates
Mean hourly wage			
Hispanic	$4.35	$4.14	$4.52
black	4.21	4.53	4.22
white	4.20	3.93	4.23
Mean weekly earnings			
Hispanic	$166.72	$123.52	$177.09
black	146.56	143.82	141.06
white	137.45	139.36	138.65
Unemployment (percent of civilian labor force)			
Hispanic	24.3	50.2	20.1
black	24.8	25.0	0.6
white	5.8	26.9	0.0

The estimated coefficients b_o through b_3 measure the average relationship between these three predictors and hourly wages for high school graduates never enrolled in postsecondary school. These coefficients were then used to compute

$$Y_d = b_o + b_1x_{1d} + b_2x_{2d} + b_3x_{3d},$$

where x_{1d}, x_{2d}, and x_{3d} are the average SES, achievement, and gender of high school dropouts, and Y_d is therefore the predicted hourly wage of a graduate with the same characteristics as the average dropout. Equivalently, Y_d is what the average dropout would have earned if the relation of hourly wage to these characteristics were the same as for the high school graduates. The value of Y_d is shown in the third column of Table 13. The table also shows the results of similar computations for weekly earnings and unemployment. The relation of unemployment to SES, achievement, and gender was estimated by logistic regression.

Table 13 shows that dropouts had higher unemployment rates than graduates in fact, but if they had been treated as graduates in the labor market, the dropouts' unemployment rates would have been not only lower than they were in fact, but also lower than the graduates' unemployment rates. The reason why dropouts, if treated as graduates, would have done better than the graduates actually did is that dropouts on average had higher achievement test scores, and these are correlated with better labor market outcomes. (See Chart 1. Also, the alert reader may have seen some small discrepancies between the data in Chart 2 and Table 13; these are due to cases with one or more missing variables being excluded from the analysis in Table 13.)

Table 13 shows that Hispanic and white dropouts would also have been better off in terms of earnings if they had been treated in the labor market as if they were graduates. For blacks, again, lack of a complete high school education does not appear, on average, to create a disadvantage in terms of earnings. But this is the only exception to the general pattern in Table 13. In general, lack of a complete high school education does diminish early prospects for employment and earnings, even allowing for the fact that the students who drop out already possess some characteristics that put them at a disadvantage in the labor market. This conclusion differs from that of Bachman and others (1971), who emphasized that dropping out was a "symptom" of prior disadvantages, more than a major problem in itself.

Our results do indicate that dropping out itself does cause problems in the labor market for the dropouts, but from our data we cannot tell why. One seemingly obvious explanation is that dropouts have not learned some important skills or information that other students acquire in the last year or two of high school. The fact that dropouts on average scored higher on the HS&B tests than graduates who did not attend postsecondary school does not necessarily mean that the dropouts knew more, because the 1980 sophomores and seniors took different tests. On the vocabulary, reading, and math parts, the sophomore and senior tests shared some items in common, but the non-shared items made the senior test more difficult. Sophomores also took tests in science, writing, and civics, while seniors were given three tests not based on curricular content: testing associative memory, perceptual speed and accuracy, and visualization in three dimensions. The composite test score measures where a sophomore stood in the distribution of sophomores, or where a senior placed in the distribution of seniors, but the scores were computed to produce nearly identical distributions, so it is possible to compare sophomores' and seniors' 1980 test scores. The findings in Table 13 imply that if employers rewarded dropouts who stood high in the sophomore test score distribution the same way that they rewarded graduates who stood higher in the senior test score distribution, then dropouts would have substantially better prospects of employment and earnings. But a graduate who placed at a certain percentile in the senior distribution may actually know more than a dropout who placed at the same point in the sophomore distribution, and the difference in knowledge may matter to employers. A dropout may be smart but still not know enough.

Lack of a complete high school education may also matter to employers for other reasons. The fact that recent dropouts are younger than recent graduates may imply a difference in maturity. In addition, apart from any actual differences in maturation, skill, or knowledge, employers may prefer graduates because they assume graduates are more likely than dropouts to possess certain desirable habits or personality traits. Such traits or habits may include punctuality, respect for authority, tolerance for tedium, and willingness to take new responsibilities. High school may not actually do much to change these habits or traits, but it may effectively "screen" those who have them from those who do not. If this were the only reason why employers preferred high school graduates to dropouts, then a high school education would have no payoff if no students dropped out!

Though the HS&B data provide no test of whether the observed payoff from finishing high school is the result of what students actually learn there or whether high school merely screens out students who already possess certain characteristics that employers value, the data do indicate that dropping out is correlated with background characteristics beyond students' control, and that lack of a complete high school education creates additional difficulties for youngsters in the labor market. That is why dropping out is a problem.

Summary of Findings on California Dropouts

Major findings from our analysis of California HS&B data may be summarized as follows.

Reasons for dropping out. Not liking school is the reason given most often. A few exceptions appear in our data: minority dropouts in California report poor grades as a more important reason generally, minority males cite economic reasons more frequently, and minority females cite pregnancy or marriage as more important than simply disliking school among their reasons for leaving.

Comparing 1980 sophomores who were still in school two years later with sophomores who later left without graduating, we found similar feelings about life in general but quite different feelings about school. Sophomores who later drop out do not appear generally more troubled or alienated than other sophomores, but they are clearly more negative about school.

Who drops out? Hispanic and black students, children from families with low socioeconomic status or where the father is absent, and students who have frequently moved from one school to another are more likely to drop out. These are all background factors beyond the control of students themselves. In addition, low achievement and more frequent absence from school often precede dropping out. Generally, students with these characteristics are more likely to drop out whether they are in a school where the overall dropout rate is high or low -- except that Hispanic students are *less* likely than other students to drop out from schools where the overall dropout rate is low.

Consequences of dropping out. High school dropouts are far less likely than high school graduates to attend postsecondary school. They are far more likely to be unemployed -- 33 percent of male dropouts in our California sample were unemployed compared to only 13 percent of their classmates who finished high school and were in the labor market at the time of the follow-up survey. The disadvantage for females is less -- 20 percent of female dropouts compared to 17 percent of graduates. Compared to graduates, employed dropouts were more likely to be found in kitchens, farms, and factories than in stores or offices. Furthermore, dropouts' difficulties in the job market can be attributed mainly to the fact that they dropped out, not to disadvantages that were evident before they left school. If potential employers treated dropouts the same way they treat graduates who do not attend postsecondary school, the dropouts' difficulties would diminish greatly.

Most sophomores who later dropped out did not regard it as a good decision. Those who were working usually said they enjoyed their jobs more than school, but most still indicated their work was less important than school would be.

School-Based Student Retention Programs

In this section of our report, we catalogue and describe several programs offered by California school districts which have some expectation of influencing the decisions of youngsters to stay in school. The programs included are *continuation education*, *work experience education*, *alternative schools*, and *independent study*. For each of these, we attempt to outline the nature and scope of current offerings, such as we can determine from available information. A dominant theme in what follows is the current unavailability of many descriptive statistics which we would like to know. Central collection of even basic data regarding many of these programs -- numbers of pupils, at what grade levels, doing what, benefitting from what resources, and with what results -- is haphazard or non-existent. There seem to be several important reasons for this which contribute to our overall understanding of the high school dropout problem in our schools. So we begin with a discussion of what one faces at the present time when making inquiries such as ours.

The Organizational Abyss of Dropout Prevention

No one is clearly responsible for addressing the problem of dropouts. School Attendance Review Boards (SARBs) are given this responsibility by state law, but they are given no state resources, and in practice they deal with only a tiny fraction of the students who drop out. Instead, responsibility for retaining more students can only be interpreted to be spread rather thinly across entire systems -- curricular programs should be stronger, classes more relevant, campuses safer, counselors more perspicacious, parents more interested, pupils more persistent, and so on. Second, since no single *employee* -- administrator, principal, counsellor, or teacher -- or *organizational division* takes charge of the institution's capacity for retaining youngsters until graduation, no one is evaluated on this dimension. And even supposedly dropout targeted programs themselves are not systematically evaluated on this criterion either. Efforts which are at all focused on the needs of dropout-prone pupils tend to be fragmented and decentralized in our schools and their successes or failures are not in simple terms of who is or is not dropping out. And finally, at both levels extensive study thus far has been concentrated on the traits of dropouts, and not on the more problematic tasks of evaluating what inclines pupils to persevere or to withdraw and under what conditions. In sum, Deal suggests that colleges (and we suggest that our schools) have not mounted much of a concerted attack on student attrition. A primary implication of this is that very little data which is pertinent to grasping the nature of dropping out behavior is collected by state authorities, and what little may be known at various school districts is largely incomparable from place to place. At least in the case of California schools, this may change in light of our increasing realization of the extent and growth of the problem.

In fact, an attempt was made by the Legislature in 1984 to require school districts to report annual data concerning high school dropouts to the State Department of Education. The age, grade level, qualification as bilingual, and reason for dropping out for those leaving school each year would have been sought and tabulated. The bill (AB 3287, sponsored by Assemblywoman Molina) passed but was vetoed by the Governor. In addition, an attempt to establish education clinics to help dropouts with an appropriation of $2 million (SB 2181, Torres) was also passed and vetoed that year.

The programs we describe below are sometimes considered to be the schools' arsenal for confronting potential or actual school dropouts. And yet, when we examine both the goals established in legislation for these programs, and also the words used to describe them by those in the field who conduct them, helping potential or actual dropouts is not clearly indicated as the primary purpose of any of them. We instead impute such intentions to a variety of school-based programs which either promote student ties to potential employers, or which have arisen at least in part to address problems of habitual truancy. Our overriding presumption has been that if regular school programs of general or college preparatory education are not capable of inspiring completion of the high school diploma, then perhaps this could be achieved through some alternative arrangement which promotes more positive ties to the world dropouts would be facing anyway -- namely the world of work.

Our difficulties in coming to any important conclusions about the effectiveness of these programs are apparent in some very critical information gaps. While we know something of the numbers of California youngsters who drop out,we do not know with any precision which of these or other programs they may have participated in while still in school, nor what effects such participation may have had on their decisions to leave. (The HS&B survey gives some partial information, which we report below.) Also missing is any information which would help us to assess the effects that the availability of these programs has on those potential dropouts still in school. Our actual understanding of these programs falls far short of these ideals. For most of these programs, we cannot determine with any reliability even the numbers of children served, nor much of a generalizable nature about what participation has meant for the youngsters involved. An obvious conclusion of our work is that more comprehensive data gathering could contribute greatly to sound policy-making regarding these issues. We turn now to California's school-based programs putatively tied to dropouts.

Continuation High Schools

Continuation education is the oldest of California's alternative education programs. It was established by the Legislature in 1919 at the same time that compulsory school attendance was extended through age 17. Its initial purpose was to provide a part-time setting which would encourage employed youngsters to complete high school -- it certainly constituted a way for the many who were working at the time of the enactment of a higher compulsory attendance age to maintain needed jobs and still comply with the new law. Since that time, the purpose of encouraging high school completion has remained central to continuation education; but the participants now include many beyond those for whom jobs and school conflict. Others whose circumstances preclude full-time school attendance attend, among them youngsters with adverse health or disability conditions, those with children of their own to care for, and some engaged in juvenile court proceedings. Another group of participants are those who previously dropped out of school and who, wishing to return to their education, must await the start of a semester to begin. (High schools sometimes do not allow dropouts to re-enter school in the middle of a semester.) Some students have been assigned to continuation schools by their high schools as a result of disciplinary proceedings (Camp, 1980, p. 45; Hill, 1984).

Continuation education is addressed in the California Education Code sections 48400-48454, and CAC sections 11000-11010. By law, continuation schools operate a minimum of 175 days a year (the same requirement as for other high schools) at least three hours a day. Students employed part time (defined as less then 30 hours a week) must attend at least 15 hours per week, while a full-time employed student must attend a minimum of 4 hours a week. Students may also satisfy compulsory attendance requirements by combined attendance at continuation schools and regional occupational centers (EC 48430).

Legislative action in 1965 required all districts maintaining a high school (or high schools with 100 or more students in the 12th grade) to provide a continuation education program -- either designated classes within the conventional school or a separate continuation school. In the same year a law was enacted "which made it mandatory for school districts to send students to continuation classes after ten days of suspension in any one year or be penalized financially by receiving less state money" (Yoas, 1969, p. 5). These actions, coupled with state incentives offered through the Foundation Aid Program, spurred the growth of separate continuation schools; there are now about 419 such schools in contrast to only 66 of them in 1966 (Yoas, p. 6). Defined as "small necessary high schools" (EC 41711), continuation schools have 15 or fewer full-time credentialed staff and an average daily attendance (ADA) of 300 or less. Eighty percent of continuation schools have 75 or fewer ADA (Hill, 1984). Approximately 100,000 students were enrolled statewide in the 1981-82 school year. Of these, about 80 percent enrolled voluntarily while the remaining 20 percent were assigned to continuation schools by school authorities or other officials (school principals, SARBs, or the courts).

Over a recent 10-year period, the enrollment in continuation schools has grown by about 67 percent (see Table 14). Since the number of continuation schools increased at about the same rate, the enrollment per school remained about the same. The ADA per school has grown more rapidly than the enrollment, however; and average size of continuation schools (as measured by ADA) has increased considerably.

Who attends continuation schools? Typically, a continuation school student is a youngster who has tried the conventional comprehensive high school in the district, and has decided to leave before completion, for any of a variety of reasons. Some are described as "divergent youth" who find it

Table 14

California Continuation Schools, Numbers Enrolled and Attending, 1970-71 and 1980-81

	1970-71	1980-81	Percent increase
Number of schools	250	400	+ 60%
Cumulative enrollment			
Statewide	60,000	100,000	+ 67%
Per school average	240	250	+ 4%
Average daily attendance			
Statewide	18,000	42,500	+136%
Per school	72	106	+ 47%

Source: California State Department of Education (Communication to project staff).

difficult to learn in the milieu of the standard high school. These youngsters "...have a cluster of personal characteristics, many of which are near the extremes (of curves that describe such attributes as ability, general health, grade-point average, concept of self, reading level, punctuality, competitiveness, motivation)" (Reed, 1969, p. 23). In more specific terms, most continuation students belong to at least one of the following groups:

(1) Youngsters who work full-time, or on a regular part-time basis. A

recent survey of continuation schools reports that 22 percent of the enrolled students were employed, and 31 percent of this group were working full-time (AOR, Survey of Continuation Schools, 1983). Reported statewide figures for continuation schools roughly corroborate these survey findings (SDE communications to authors). There is a long-term trend toward smaller proportions of continuation students involved in full-time or part-time work.

(2) Girls who are pregnant or already have a child. Enrollment at a continuation school offers more flexible scheduling of attendance, the possibility of attending fewer hours per day, and a different atmosphere. (Participation in continuation schools should not be confused with receipt of special services provided through the Pregnant Minors Program administered through SDE's Office of Child Development.)

(3) Emotionally or educationally limited youngsters. Such youngsters may be well below the standard level of learning and achievement for their age group and will feel more comfortable at a continuation school. (Continuation schools may offer special education (IEP prescribed) programs if appropriately certified staff are assigned.)

(4) Students with excessive truancy or bahavioral problems. These students typically show many of the symptoms of dropouts; they are likely to be assigned involuntarily or to have been suspended from their home high schools.[1]

(5) A fifth group contains students returning at mid-term, from dropout status, juvenile authority custody, or foster home placement. Frequently,

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[1] The identification of the group to which a student belongs is complicated by the fact that, as an experienced educational psychologist has argued, many students sent to continuation schools for attendance or discipline problems are really suffering from learning disabilities (Gillespie, 1982). Involuntary transfer is described in ED 48432.5.

these students will transfer to full-time school at the beginning of the next semester.

(6) Finally, there is a group who request, with parental permission, to be allowed to attend in the belief that the different style of the continuation school will provide a more fruitful environment for learning (Knoeppel, 1969, pp. 299-300).

Characteristics of the continuation school. Until passage of SB 813 in 1983, the Education Code spelled out the Legislative intent for continuation school in terms of these four goals:

1) To provide an opportunity for the completion of the required academic courses of instruction to graduate from high school,
2) To provide a program of individualized instruction thay may emphasize occupational orientation or a work-day schedule,
3) A specially designed program of individualized instruction and intensive guidance services to meet the needs of pupils with behavior or severe attendance problems, or
4) A flexible program combining the features in 1), 2), and 3). (California Education Code, Section 51020.)

Recently, SB 813 amended the Education code (section 48430) to state the Legislative intent of continuation schools to be:

1) To provide an opportunity for completing academic courses and graduating from high school,
2) To provide an instructional program which emphasizes occupational orientation or work-study schedule and offers intensive guidance services to meet the special needs of pupils, and
3) To provide a program to meet the educational needs of each pupil, including, but not limited to, independent study, regional

occupation programs, work study, career counseling, and job placement services, as a supplement to classroom instruction. (From a memo of James R. Smith, Deputy Superintendent, Curriculum and Instructional Leadership, SDE, dated September 15, 1983.)

In order for the continuation school to fulfill the Legislative intent as applied to the diverse needs of the different types of students who attend, many of the characteristic patterns of organization and structure of the standard high school have been greatly altered. For example, there is usually open entry to the school at any time of the year, student instruction is highly individualized and based upon each student's initial level of achievement and own rate of progress, and credits are often based upon demonstration of competencies in specific subjects; in addition, credits may be earned more slowly or more quickly than in the traditional semester unit pacing used by regular high schools.

The three major components of continuation schools emphasized by the new code requirements are guidance services, individualized instructional services, and occupational development services (vocational, career and work experience education). In the 1983 AOR Survey of Continuation Schools, 92 percent reported that they offered an individualized program of instruction. Personalized counseling was offered by 83 percent. Part-time work and career guidance programs were reported by more than 60 percent. Occupational and career counseling through work experience programs, career awareness and counseling, and the presence of regional occupational programs or centers were reported by over 70 percent of the schools. Only 46 percent reported having vocational education courses as part of their programs. Of the students who were working, 49 percent had been placed by the school staff. Eleven percent of enrollees were attending a continuation school and a Regional Occupational Center or Program at the same time. However, child care, health care, peer tutoring, and on-the-job training are programs offered only by a comparatively small number of schools.

Enrollment, turnover, and dropouts. The diversity of characteristics of the students served, the prescribed intent of the Legislature, and the operations of the continuation schools all combine to produce high rates of turnover in the student population of continuation schools. Table 15 shows that total enrollment over a school year is about twice as high as enrollment at any moment of time within that school year. This large turnover rate makes many numerical comparisons between conventional and continuation schools extremely difficult to interpret.

About 43 percent of those who are enrolled at some time in the school year leave the school each year. (This compares to a reported 46 percent leaving 10 years earlier (Hill, 1984).) More than half of these (26 percent) return to their home schools or transfer to another school. Almost 40 percent of those leaving (17 percent of their total enrollments) leave schooling (at least for the time being) when they leave the continuation school. This suggests that one out of every three students enrolled in any month will not finish the school year as an enrolled student.[2]

Attendance rates are based on the ratio of actual attendance to enrollment at three different dates. Overall, ADA generation appears to average about 75 percent of enrolled youngsters.

Academic Performance of Participants. California conducts an annual assessment of academic achievement in its schools in a program known as the California Assessment Program (CAP). Students at specified grade levels are

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[2] There is no comparable figure available for conventional high schools. However, see Olson (1982, p. 9) for certain suggestive statistics on California's dropout rates over longer periods.

Table 15

Continuation Education Enrollments, Statewide 1979-80, 1980-81, and 1981-82

	1979-80	1980-81	1981-82
Enrollment and ADA			
Cumulative for year	98,667	99,889	102,167
First month enrollment	46,559	48,694	47,357
First month ADA	NA	35,141	36,685
ADA as % of enrollment	--	72%	77%
Fourth month enrollment	53,509	56,079	54,131
Fourth month ADA	39,321	41,472	41,174
ADA as % of enrollment	73%	74%	76%
Seventh month enrollment	56,990	59,839	55,891
Seventh month ADA	41,043	42,562	42,693
ADA as a % of enrollment	72%	71%	76%
Students leaving as % of cumulative enrollment	40%	44%	43%
% transferred to educational programs	19%	26%	26%
% school leavers to non-educational settings)	21%	17%	17%

Source: California State Department of Education.

tested in verbal and mathematical skills, and relevant pupil background information is gathered. We present in Table 16 a crude comparison of continuation and regular high schools based on the CAP test scores and other collected information. On average, the state's regular high schools perform at about the 50th percentile on each of the reading, writing, spelling, and assessments. The average percentile rankings of the continuation schools are lower -- ranging from about the 14th percentile in math to the 20th to the 31st percentiles in verbal domains.

The lower CAP test performance of continuation school students is not an indictment of how continuation schools contribute to pupil achievement. It most certainly reflects the lower achievment levels of pupils enrolling in continuation schools in the first place, which we refer to elsewhere in this discussion. The frequent turnover of continuation school enrollments further supports this disclaimer. However, an interesting comparison stands out when pupil background data are considered. The performance of California's students generally on the CAP tests is highly correlated with such measures as parental level of education (positively correlated) and the presence of youngsters from poor families (negatively correlated). We include average percentile rankings for continuation versus regular high schools on these measures also in Table 16. The figures suggest that continuation students come from families with typically lower than average parental levels of education (31st percentile on average versus 51st percentile for regular high schools), but their deficits in this regard are smaller than their deficits in test performance. In addition, continuation schools contain fewer than typical shares of AFDC family youngsters (38th versus 51st percentile). These comparisons suggest that the low achievement levels of continuation school students are not so much a class-related phenomenon as achievement test

Table 16

Mean Percentile Rankings on Specific CAP Tests and Background Variables
Regular Versus Continuation High Schools

Type of High School	CAP Tests				Background	
	Reading	Writing	Spelling	Math	Parent Educ.	AFDC
Regular School (N = 1218)	50.3	50.2	50.0	50.3	50.6	50.7
Continuation School (N = 330)	24.8	19.9	31.4	13.7	31.4	37.9

performance is considered to be more generally. Other explanations for low test performance might be sought. The low CAP test figures do suggest that continuation schools have a considerable challenge on their hands when it comes to inspiring academic progress toward high school diplomas on the part of their clientele.

Graduation rates. One of the outcomes intended by the Legislature for continuation school students is completion of sufficient academic courses to enable the student to graduate. Table 17 shows the number of graduates in three years, and the type of school that granted the diploma. Overall, about 10 percent of the students who were enrolled in continuation schools did graduate. (A similar figure was reported for 10 years earlier (Hill, 1984).) About 75 percent of the graduates received their diplomas from the continuation high school, another seven percent graduated from a conventional high school, five percent from an adult high school, and about 13 percent graduated by passing the California High School Proficiency Exam.

The number of credits required for graduation is established by the local governing board. About two-thirds of the continuation school(s).

The relatively low graduation rates can be traced in part to the low credit standing of students as they transfer into the continuation schools.

Table 17

Continuation Education Graduation Rates, Statewide
1979-80, 1980-81, and 1981-82

	1979-80	1980-81	1981-82
Graduates as % of cumulative enrollment	10.7	9.7	10.2
By source of diploma or certificate			
Continuation high school	7.8	7.0	7.7
Conventional high school	.7	.7	.7
Adult school	.5	.5	.5
California high school Proficiency Exam	1.6	1.5	1.2

Source: California State Department of Education (communication to authors).

Typically, 200 or more credits are required for graduation, but almost 75 percent of the entering students have accumulated less than 100 credits before enrolling (see Table 18).

Since 84 percent of continuation students are 16 years of age or older, a dramatic rate of increase in the accumulation of school credits would be required if most continuation students were to graduate at the age of 18, i.e. by the end of compulsory education. Since credits may be granted by demonstration of competencies, rapid accumulation of credits is at least possible in continuation schools. With few exceptions, students 18 or over are not accepted for enrollment at continuation school, but they may continue to attend for completion of the high school diploma (three percent of participants are older than 18).

Table 18

California Continuation Schools, Credits at Time of Enrollment, 1981-82

Credits	% of students Enrolling	
0 - 50	43%	
51 - 100	30%	
101 - 150	19%	Potential graduates
151 - 200	7%	
200+	1%	

Source: California State Department of Education
Figures for 1979-80 and 1980-81 are very similar.

Revenues and Expenditures. Most of the funds needed to finance continuation high schools are provided by the State. In a recent year (1981-82), approximately 77 percent of the income of continuation schools was derived from State funding. However, the funds are not a categorical grant. They form part of the revenue base for the district of which the continuation high school is a part. In some instances this mechanism has led to questions of whether continuation schools are receiving appropriate levels of resources. It is possible for districts to receive more aid as a result of continuation school operations than they actually spend on them. We have not examined this systematically, but our limited discussions with district officials suggest that the outcome depends in part on how aggressively continuation school administrators state claims to "their own" money.

Funds received from the state for the operation of continuation schools are based on an ADA count which is generated by the number of pupil-hours clocked. Each ADA counted generates funds for district operations according to the annual revenue limits determined legislatively. Three pupil hours (180 minutes) counts as a day for apportionment purposes in continuation schools. No pupil may generate more than 15 hours per week, even if attending for more than this. The generation of ADA in continuation schools differs from that in regular high schools; these schools must maintain 240 minute minimum days, and districts count their students in attendance each day to derive an average enrollment for ADA and state funding apportionment generation.

Table 19 presents expenditure figures for California's continuation schools for a recent year provided to us by SDE. The reported total is about $79 million. If we use our ADA figure from the previous year (from Table 1), total expenditures per ADA for this year would amount to $1858. This figure can be compared to an average revenue limit per ADA (state apportionment) to school districts of about $1800 for the same year, which is less than average

Table 19

Expenditures of Continuation Education Schools, 1981-82

Type of Expenditure	($)	($)
Direct Expenditures		
Salaries and Benefits		
Certificated Salaries	$ 44,958,988	
Classified Salaries	4,304,712	
Employee Benefits	8,647,220	
Books, Supplies, & Equipment	2,209,471	
Contracted Services	1,218,508	
Sites, Building, Books, Media, & New Equipment	541,246	
Other Outgo	79,601	
Total Direct Expenditure		$61,959,746
Support Charges		
Direct	13,447,474	
Indirect	3,551,198	
Total Support Charges		16,998,672
Total Expenditures		78,958,418
ADA (1980-81)		42,500
Expenditures per ADA		$1858

Source: California State Department of Education (communication to authors).

expenditure because state and federal categorical aid also contribute to what districts spend. Therefore, in spite of small class sizes, reported average expenditures per pupil are no higher in continuation schools than in other public schools.

As we mentioned earlier, continuation schools generate funding allocations to school districts based on the numbers of attending students. These funds are not allocated directly to continuation schools -- such allocations result from distric decisions about where to assign teachers and other staff and material resources. Recent legislation has tried to provide assurances that income generated by a continuation high school would be translated to expenditures made by the district for the operation of the continuation school. AB 257 of 1984 (which was passed but vetoed by the Governor) would have added to the education code a provision for decreasing (in certain circumstances) the revenue limits of a district when a continuation school is discontinued. It also provided that any increase in revenue generated by an increase in the ADA at a continuation school should be expended on the continuation education program. SB 813 provided for direct allocation of stated federal categorical funds to continuation schools when these schools enroll eligible pupils. This bill also required that more detailed information on financial (and other) aspects of the continuation school be submitted to the State Department of Education each year -- a process which is intended to lead to the annual issuance of reports of interest to policy makers.

Effectiveness of continuation schools The continuation school offers a part-time attendance option for students seeking alternatives to conventional high school participation. In some cases, the continuation school may be the only alternative format option for age 16-18 youth. On the basis of a special survey, site visits, and interviews, AOR staff conducting the survey of school alternatives concluded that, "Most students like continuation schools because the teaching staff is 'caring', the schools are small, and they are given a chance to 'catch up.'" (AOR, 1983, p. 3). Notwithstanding this conclusion, questions have been raised about the overall effectiveness of continuation schools and programs.

One source of concern centers on the low numbers of students actually completing high school. Appropriate standards, however, are not clear. Graduation rates of conventional and continuation high schools cannot be directly compared. Differences in age and grade composition of the student bodies, turnover rates of students, and student background complicate both measurement and interpretation of graduation rates. One reason that only 10% of annual cumulative enrollments graduate is the low credit standing of most students as they enter continuation school (see Table 18). Thus, a large part of the problem relates to the students' experiences before entering. What happens to the students' rate of credit accumulation while attending the continuation school is not known. Studies of credit accumulation rates "before" and "after" entering continuation school could provide (when used with appropriate care) a useful measure of effectiveness for students in certain categories.

A second realm of concern with continuation schools is their own dropout rates. In this case, too, direct comparisons with conventional high schools are difficult to make or interpret because of differences in age spread, turnover rates, and student backgrounds. In addition, it has been suggested that many students will drop out of a regular high school rather than allow themselves to be transferred to a continuation school (Olson, p. 13). A great deal more information on a disaggregated basis must be known about dropouts before it will be possible to make sound judgments about the effectiveness of continuation schools in lowering overall dropout rates.

A third concern relates to the diverse mixture of groups and purposes served by the continuation schools. In many districts, a continuation school is the only option for compulsory school attendance. In other districts, where additional alternatives exist, the continuation school is more likely to have high numbers of involuntary assignees -- usually attending as a result of disciplinary actions. It has been suggested by some observers that the involuntary-transfer and voluntary-transfer students cannot both be well served by the same school. It is probably true, anyway, that a school that attempts to build an image as a positive alternative may have this effort stymied if its use as a holding place for problem students is a salient characteristic. Such questions have led some critics to call for a drastic restructuring of our efforts to meet the range of purposes now espoused for continuation schools.

Work Experience Education

Work Experience Education refers to certain arrangements between California school district and local employers providing part-time work experiences for enrolled pupils. The California State Board of Education in 1942 adopted administrative regulations authorizing school district to enact formal programs of work experience education (Cal. Admin. Code Title 5, Education, Section 98). Districts desiring to offer work experience education must file formal plans regarding their programs for approval by the State Department of Education.[3]

These programs involve pupils simultaneously in employment and in classes at school which are supposed to help pupils make the most of what they may be learning in their workplaces. Class topics range widely over all aspects of job choice, job finding, relations with employers and co-workers, and job mobility. Regulations provide for three distinct types of work experiences which may be included in district plans. Within these there seems to be ample latitude for districts to secure working opportunities for interested pupils. The three are: 1) *Exploratory* work experience education -- these programs allow students to systematically observe a variety of occupations without actually engaging in the work involved. (Thus, no skill training is intended.) This can take place in a rotational schedule with a large and diversified employer, or through a plan of observations at more than one setting. 2) *General* work experience education -- these programs provide for on-the-job work experiences designed primarily to build positive job-related attitudes and work habits. Such work need not be related to a pupil's occupational goals. 3) *Vocational* work experience education -- these programs combine specific skills training at school with a related job experience off campus which reflects the pupil's immediate occupational goals. As we point out below, of the three types listed, nearly all current work experience education offerings seem to be of the second, or *general* sort described.

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[3] For current provisions relating directly to Work Experience Education programs, see California Education Code Sections 46145-46170, 46300, 51760-51770; also Cal. Admin. Code Title 5, Sections 10070-10078.

The basic functioning of work-experience education (WE) programs is as follows: districts designate a coordinator or corrdinators (certificated personnel) for their WE programs. Each coordinator may serve a maximum of 125 pupils. The coordinator takes full responsibility for most aspects of the WE program -- including contacting potential employers, finding interested students matching employers and students, counseling pupils, conducting related class sessions, monitoring workplace activities, and generally promoting the program in the community. Most coordinators seem to come from the ranks of business education teachers, although others are represented (one we talked to was a math teacher). Coordinators who serve a full 125 pupils generally work full-time at the tasks involved, namely the coordinating functions and the conduct of, typically, once-per-week classes for participants. Many coordinators serve fewer than 125 pupils and split their time between WE activities and other instructional responsibilities in their schools.

Pupils participating in WE spend a part of each day at school and up to four hours working for a participant employer. State laws prescribe a general minimum of 240 minutes of school for each full ADA credit; the applicable minimum requirement for 11th and 12th graders is 180 minutes of attendance. WE students thus may spend as little as three hours at school per day, but during this time they must accumulate needed credits for graduation in order to receive their diplomas on schedule. Four hours per day on campus was reported to us as being typical of WE student schedules.

Pupils are paid at least minimum wages. Under current California and federal laws, students under 18 and other inexperienced workers may be paid 25 percent less than the regular minimum wage during their first 160 hours of employment.

Finance of work experience programs. These programs are mainly funded by state apportionment aid. Where applicable, federal vocational education funds may be used to offset some of the costs of coordinator salaries and of support services such as clerical help. Special education funds from federal and state sources may also be used in cases where eligible pupils are served in WE programs. Federal CETA program funds assisted some WE projects during its several years of operation.[4]

District and state officials view WE programs as a small financial boon to school districts. Districts may count as full ADA's WE students who spend as little as three or four hours per day on campus. A WE coordinator can thus be viewed as typically serving 125 pupils for as many as two contact hours per day (the difference between the amount of time a WE student is in attendance on campus and that clocked by regular students). This possible total of 250 seat hours accounted for by one certificated employee compares favorably with the 150 or so hours accounted for by the typical teacher in the course of a school day; so WE students may be less expensive for districts to serve.

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[4] We are not aware of WE programs which benefit from JTPA (CETA's successor program) funds.

Descriptive data on work experience education. In our efforts to the extent and nature of WE activities in California schools, we contacted State Department of Education officials, leaders in the California Association of Work Experience Educators (CAWEE), and selected district administrators. What resulted is an unfortunatelly incomplete picture. The only statewide data applicable to WE programs comes from the California Basic Educational Data System (CBEDS), which uses reports generated at school and district office sites on a designated data collection day during October of each year. For programs like WE, officials believe that the indicated totals fall considerably short of actual participation. There seem to be problems with catching all participants on campus on the designated data collection day, and any flows of pupils in and out of programs during the year are not captured in the CBEDS strategy. Table 20 shows data for the 1983-84 school year:

Table 20

Work Experience Education Participation, 1983-84

Total Enrollment	47,098
FTE Teachers	385
Total Teachers	1,367
Number of Schools	571
Number of Districts	252

Source: SDE communication to authors.

Total indicated enrollment in work experience education programs for 1983-84 was 47,098. The totals of teachers, schools, and participating districts are also shown in Table 20. The implied averages are about 122 WE students per FTE teacher, about 35 pupils per teacher involved in WE, about 83 work experience education students in the average school having a program, and an average of 187 WE pupils in each district reporting to have a WE program. Table 21 shows CBEDS student participation data for 1980-81, which is reported in somewhat more detail.

The reported enrollments for 1980-81 are about 25 percent higher than those shown in Table 20 for the most current year. The 1981 figures show overall parity between boys and girls as participants, and a concentration of participation by those in the 11th and 12th grades.

Our conversations with SDE officials suggest, as we have said, that these totals are probably low, but just how far off cannot be determined. Educated guesses were offered that totals of participants might be more like 75,000 to 100,000 youngsters. These overall numbers imply that somewhere in the range of 7 to 15 percent of the 600,000 or so California 11th and 12th graders participate in work experience education programs. It was also guessed by

Table 21

Work Experience Education Participation, 1980-81

Grade Level	Male	Female
9-10	893	674
11-12	25,906	25,171
adult	857	920
unknown	2,271	1,985
total	29,927	28,750
grand total	58,677	

Source: SDE Vocational Education Enrollment report 1980-81
Run date: 10-20-81.

those we talked to that the CBEDS data were accurate in implying that there may have been some reduction in overall participant numbers in the past few years. If this is so, it might be due to increasing numbers of academic course requirements for graduation which recent years seem to be witnessing in California schools.

We also checked with the California Association of Work Experience Educators (CAWEE) to discuss what we were learning about WE programs. Their membership includes some 700 of the state's WE coordinators (CBEDS data for 1981 suggest that there are at least double this number of coordinators statewide). CAWEE representatives shared our concerns about insufficient data regarding their programs statewide. They advised us that some added regulations will go into effect on January 1, 1985 as a result of AB 3331 (1984). These will mandate at least one period of instruction per week to accompany WE off-campus experiences (a common practice now, we are told), and a maximum of 10 units per semester and 40 units total (out of some 210 or 220 usually required for the diploma) which may be credited toward high school graduation under WE programs. Common reported practices are that typical WE students claim fewer than these numbers of credits in their programs anyway. CAWEE spokespersons also suggested that successful WE programs do help to keep youngsters in school. Employers are reported to be generally cooperative in requiring their WE workers to meet their school's attendance requirements. One respondent claimed a universal, "No School -- No Work" policy for her program which maintains a waiting list of youngsters wanting to participate

Table 22

WE Teachers and All HS Teachers Compared

	All HS Teachers	WE Teachers
Elem. cred.	3.5%	4.2%
Sec. cred.	84.6%	85.9%
Subj. cred.	16.3%	16.0%
Admin. cred.	6.4%	22.6%
Couns/psych. cred.	3.1%	18.0%
Educ. level:		
Less than BA	3.8%	0.7%
BA	5.4%	2.8%
BA+30	43.6%	32.0%
MA	14.3%	14.8%
MA+30	31.7%	48.2%
Doctorate	1.2%	1.5%
White	86.1%	92.6%
Black/nonHisp.	4.1%	2.0%
Hispanic	5.7%	2.8%
Asian/Pacif.	2.5%	1.7%
American Indian	1.2%	0.8%
Male	62.3%	73.6%
Female	37.3%	26.3%
Median age	41	46
Med yrs in ed.	14	18
Med yrs current dist.	12	15
Mean salary	$23,005	$25,310

(she has her maximum of 125 youngsters). Our CAWEE respondents also held that of the three types of work experience education, *general* work experience education is nearly exclusively practiced. The other types are much more expensive to run due to added demands for coordinator time.

Finally, we are aware of certain characteristics of WE teachers as a result of CBEDS data collection. In Table 22, we present a comparison of WE teachers (those reporting 4900 and/or 5500 activities) to all high school teachers in California in 1981.

Table 22 shows many similarities between WE teachers and all high school teachers. The most significant difference among those shown is probably the larger incidence of administrative and counseling credentials among WE teachers. This seems to fit the nature of the work of the WE teacher -- interests in administrative tasks and in counseling students are consistent with the demands and goals of WE programs.

The CBEDS data also describe the amount of their total work assignments which WE teachers devote to WE programs. Among the 788 WE teachers reporting, the average FTE equivalent devoted to WE programs is 56 percent. Between one-fourth and one-half of WE teachers devote full time to their programs.

Alternative Schools and Programs

California law allows school districts to establish any sort of school or educational program which does not conflict with code requirements or with the purposes established for school districts under law. In addition, as a result of 1975 legislation, provisions were added to the state education code which refer specifically to the establishment of alternative schools and programs (sections 58000-58514, California Education Code). The code requirements for such alternatives are minimal and are spelled out in the following paragraphs. *Alternative schools* and *alternative programs* must meet these criteria:

1. The organizational entity (the entire school or a separate class group within a school) must exist within the state public education system. (This guarantees that a variety of other standards, such as certification of personnel and curricular standards, will be maintained in alternative schools.)

2. Both students and teachers must volunteer to participate -- neither can be *assigned* to alternative programs.

3. To qualify as an alternative *school*, the educational program must be a total program that is significantly different from the standard programs offered in the district. An alternative *program* (as distinguished from *school*) is a program which a student may select as a part of his or her regular program.

4. The learning environment must be such that it allows students to achieve their maximum potential.

5. The alternative must be offered in addition to, rather than in place of, the traditional program.

In addition to establishing the above requirements, the broad goals of alternatives are enumerated in the Education Code. They are:

1. Alternatives must maximize the opportunity for students to develop the positive values of self-reliance, initiative, kindness, spontaneity, resourcefulness, courage, creativity, responsibility, and joy.

2. Programs must recognize that the best learning takes place when the student learns because of his or her desire to learn.

3. Programs must maintain a learning situation in which maximum use is made of student self-motivation and in which students are encouraged to use their own time to follow their own interests. These interests may be conceived totally and independently by the student, or they may be, in whole or in part, the result of a presentation by his or her teachers of choices of learning projects.

4. Programs must maximize the opportunity for teachers, parents, and students to develop cooperatively the learning process and its subject matter. This opportunity shall be a continuous, permanent process.

5. Programs must maximize the opportunity for students, teachers, and parents to react continuously to the changing world, including, but not limited to, the community in which the school is located.

In addition to these definitional and programatic guidelines, the code requires districts to fund alternative programs and schools at levels comparable to their funding of other programs for pupils at similar grade levels. It also establishes rights for parents to request school districts to establish alternatives. And finally, the code requires school districts to notify parents annually of the state's provisions for alternative schools and of ways of obtaining additional information about them. Previous stipulations required the State Superintendent of Public Instruction to report to the legislature annually on the numbers, types, and effectiveness of such programs -- a practice no longer required or done.

A great variety of educational programs can be conceived which would fall within the provisions set out above, and a commensurate range of programs seems to have evolved. Programs for gifted children, remedial programs, "back to basics" schools, schools for the arts, science magnet schools, bicultural schools, street schools, and dropout centers are all examples of programs which can and do qualify under these alternative program provisions. Some are housed as separate schools devoted to an alternative emphasis; some are mini-schools within schools; others are special programs which take up a part of the school day or week for participating pupils and teachers. They need not take place in a public school facility -- a park or museum would qualify as long as the program was run by the school district, with school district staff, and for enrolled pupils.

No records are kept centrally on the numbers, types, or effects of alternative schools -- either in total or for those which high schoolers attend. A recent effort by the California State Assembly Office of Research, known as the alternative schools survey, attempts to correct for this lack of information, but with very limited success for the purposes of our inquiries.

AOR survey data on alternative schools and programs. We show below a number of descriptions of alternative schools and programs which were generated in the 1982 AOR Survey. Some important qualifications must first be known. These include our not knowing enough about the nature of the sample drawn for the survey itself, and also some limitations arising from known comingling of alternative and other schools in the programs called "alternatives" in the survey reports.

Regarding the first point, the AOR survey was done by requesting information about alternative schools and programs from the state's school districts. Statistics reported are based on the responses attained. The sruvey report does not discuss what sorts of response rates were achieved, nor what sorts of biases might have been introduced by the non-inclusion of non-respondents. As such, the data are reported with descriptions like these: "Among 77 programs responding to this item, half have this characteristic." Or, "Of the 166 alternative programs, one third are counseling based." These descriptions cannot be translated to generalizations about California alternative schools and programs with any estimable reliability.

In addition to hindrances caused by unknown qualities of the AOR survey's sampling, another difficulty in ascribing survey results to alternative schools and programs is caused by the inclusion of schools which are not actually alternatives under statutory definitions. The alternatives reported included a healthy share of continuation schools. We are able to correct for this only with respect to a very limited number of the findings reported. A further problem arises in our trying to assess the nature of alternative schools and programs available to pupils at the secondary or high school levels. AOR reports very few figures for programs applicable to grade 9-12 specifically, and yet programs at these levels are most likely to immediately affect potential dropouts. In sum, for many of these descriptions, we are left far short of meaningful information for the purposes of our study.

On the basis of documents provided to us by SDE, it is apparent that

AOR's respondents identified and reported on 166 alternative schools and programs. Of these 166, 60 were actually continuation schools -- the topic of a separate AOR survey which yielded more than 300 schools. An additional 11 schools were either opportunity schools or combination opportunity/continuation schools. Thus, the actual sample of true alternative schools and programs numbered 95, and not the 166 schools or programs which were the apparent basis for many of the descriptions offered in the AOR report. These descriptions will be biased by whatever unique characteristics continuation and opportunity schools brought to the sample. We were able to separate these 95 programs for some purposes of description (shown in Tables 3 and 4 below), but for most of the analysis we did not have survey response data tied only to the 95 programs.

In addition to this problem, AOR reported that 77 of its reported alternative schools and programs served youngsters in grades 9-12. The inclusion of continuation and opportunity schools in their sample (which serve nearly exclusively children in these grades) means that of the remaining 95 programs, only about 6 of them could be expected to serve 9th through 12th graders. And we have no way of separating these programs, which we should expect to differ from those offered at earlier grades, for our desired analyses. So we are only in a very limited and unreliable sense talking about programs of potential use to dropout-prone youth with these figures.

Survey findings. The AOR Alternative School Survey probed various aspects of the programs queried -- curricular approach, organization, services offered, enrollments, numbers of graduates, nature of clientele, and perceived successes. For the first two of these -- curricular approach and program organization, we were able to separate continuation schools from the sample. For the others, we were not able to do so.

The curricular approaches of California's alternative schools and programs are shown in Table 23 (next page). Respondents were asked to indicate applicable descriptions from a list of common approaches. Column (a) shows responses for all 166 schools and programs and column (b) shows responses from the 95 actual alternative schools (eliminating continuation and continuation/opportunity schools from the sample). The curricular approaches indicated are similar for the two samples. No one approach is universally reported, although counseling-based and student learning style-based approaches were affirmed for half of the pure alternative school sample. Given the broad latitude of the legislative guidelines for alternative schools and programs, a healthy variety of curricular approaches would be expected to emerge in the field.

Table 24 shows the organizational types reported for alternative schools and programs. As shown in column (a), the survey reported 123 respondents for this question -- perhaps 43 of the 166 total program respondents chose not to answer this item. From survey data provided to us by SDE, we were able to identify the responses of the 95 "true" alternative programs and schools (column (b)), which differ from the overall patterns. When continuation schools are included, a large plurality of alternative programs (38 percent) are described as separate schools. A little over half as many (21 percent) occupy the next most popular configuration -- a school within a school. When continuation schools are eliminated from the sample, the organizational types are more evenly distributed across the variety shown.

The differences between the two samples in Table 23 and Table 24 suggest that the remainder of the reported data for alternative schools are probably tainted by the presence of continuation schools in the sample, as we have suggested. We have not made an attempt here to speculate about the specific biases likely to be present.

Table 23. Curricular Approach of Alternative Schools and Programs

Which of the following best characterizes your curriculum approach? (Check all that apply).

	(a)	(b)
Career oriented	33%	38%
Counseling based	50%	59%
Flexible scheduling	33%	44%
Traditional "3-R" Program	33%	33%
Vocational and technical	21%	25%
Based on students' learning style	50%	54%
Open classroom	21%	22%

(a) All respondents N = 166

(b) All respondents less continuation (60) and opportunity (11) schools N = 95

Table 24. Organizational Type of Alternative Schools and Programs

Which of the following most accurately describes your alternative school's/program's organizational type? (Check ONE).

	(a)	(b)
A school within a school	21%	22%
A separate school	38%	26%
A satellite school or annex	13%	14%
A school without walls	4%	6%
A school cooperatively maintained by several districts	0%	1%
A course offering(s) within the parent school	11%	16%
A remedial or corrective program to which students are assigned on a temporary basis	14%	19%

(a) All respondents N = 166; Responding to this question N = 123

(b) All respondents less continuation (60) and opportunity (11) schools N = 95

Table 25 shows the variety of services offered to students in responding programs. Individual instruction (probably meaning individualized instruction) heads the list and is offered in more than 4 out of 5 programs. Independent study and smaller classes, which probably go hand-in-hand with individualization in most formats, are also prevalent. Various career and work related training are tied to about half of the programs responding, but only about one in five report job placement or on-the-job training activities.

Table 26 shows enrollment figures for the responding alternative schools. The AOR survey reported that these figures were based on 130 responding programs -- somewhere between the 166 total sample and the 95 "true" alternatives in that sample. We do not know which 130 schools and programs are reported to have offered responses or why the remainder were not. The figures in Table 26 suggest that about 1 percent of our students are involved in alternative schools and programs, and that participation is roughly proportional to overall distributions of student ethnic backgrounds. Hispanic children are under-represented in alternatives, while black and other minority children are over-represented. In the absence of information about what proportion of all programs actually responded, and other characteristics of the sample, it is difficult to assess how close these figures come to describing the reality of alternative schools and programs in California schools. For instance, if only 20 percent of all alternatives were captured in the survey, the percentage of high schoolers served in alternatives might be more like five percent than the one percent shown. Or if larger districts are underrepresented in the sample, or if they tended to report on fewer than all of their alternatives, the characteristic of their programs such as minority participation might be misrepresented.

Table 27 shows how respondents described their primary clientele. The

Table 25. Services Offered in Alternative Schools and Programs

Which services do you offer to participating students? (Check all that apply).

Career counseling	66%
Vocational education classes	35%
Independent study	75%
Individual instruction	81%
On-the-job training	19%
Work-experience	55%
Flexible scheduling	51%
Combined classroom learning with work-related component	25%
Reduced class size	64%
Peer tutoring	33%
Child care	8%
Health care	10%
Job placement	20%
Involvement with private and public sector employers	33%
Outside resource people in instruction	43%
Volunteers	33%
Career exploration	45%

N = 166 (includes 71 continuation and continuation/ opportunity schools).

Table 26. Grades 9-12 Enrollments in Alternative Schools and Programs

What is your current student alternative school/program enrollment as of October 21, 1981?

Total enrollment	19,387
9-12 enrollment	13,685 (1.09%)
(Total statewide 9-12 public school enrollment	1,252,766)

Ethnic Distribution for 9-12 Enrollment

Group	No.	%	% of Total Student Popu.
Hispanic	2,183	16	26
Black (not hispanic)	2,194	16	10
White (not hispanic)	7,715	54	56
Others	1,593	14	8

Table 27. Clients Served in Alternative Schools/Programs

My school/program could be characterized as serving primarily:
(Check all that apply)

All kinds of students	70%
Low Achievers	45%
High achievers	22%
Dropouts	44%
Truants	53%
Distruptive students	30%

Upon entrance, are the majority (51 percent or more) of your students functioning? (Check one)

Below school district academic achievement norms	66%
At school district academic norms	30%
Above school district academic achievement norms	4%

N = 166 (includes 60 continuation schools and 11 opportunity schools).

dominant client is having some trouble academically, although about a third are at or above district norms. The high percentage of alternative programs geared to truants (and as well to dropouts and disruptive students) is undoubtedly indicative of the presence of continuation schools in the sample.

Table 28 shows reported "successes" of alternative programs. Improved attendance seems to top the list, followed by improved pupil retention through graduation. The least cited benefit of the alternative programs polled is improved standardized test scores for participants.

Independent Study

Another major option for California students is independent study. This was created by an unobtrusive piece of legislation in 1976 (Senate Bill 1591 (Gregorio), Chapter 210, Statutes of 1976; see Harter, 1980). The new law allowed districts to include students in the attendance count -- and therefore to be reimbursed by the state -- if the students are in

> "an independent study program under the coordination, evaluation, and general, but not immediate, supervision of an employee of the district who possessed a valid certification document."

Prior to the 1976 law, students had to be "under the immediate supervision and control" of a properly certificated employee. Normally, this requirement continues to apply.

In order to use the independent study option, a district governing board must set forth the terms and conditions under which students will receive credit for independent study. Without a formal policy on independent study, a district can count students in attendance only while they are under the "immediate supervision and control" of a certified employee. State regulations require districts using independent study to maintain a file containing the independent study agreements for all participating students. Each agreement must include (California Administrative Code, Title V, section

Table 28. Reported Successes of Alternative Schools and Programs

What are the measurable successes that your programs has had? (Check all that apply)

Improved high school graduation rates	37%
Improved attendance rates relative to the local school district	72%
"Decreased" dropout rates relative to the school district	52%
Improved scores on standardized tests relative to the school district	27%

N = 166 (includes 60 continuation and 11 opportunity schools)

11702):

> The title and statement of the major learning objectives of the study undertaken.
>
> The method of evaluation of progress toward the objectives.
>
> The duration of the independent study agreement.
>
> The manner, frequency, time, and place of reporting student progress.
>
> A statement of the number of credits to be earned upon completion of the agreement.
>
> The signature of any person, including nonschool staff, who will be assisting the student; the student's parent or legal guardian; the student; and a school district representative.

Independent study creates a broad array of choices for students, including young superstars as well as low achievers. Some students have used independent study to pursue advanced academic interests beyond what is covered in regular courses. Others have used it to satisfy high school graduation requirements while devoting themselves to intensive training for international competition in athletics or performing arts. Students who have missed school while traveling with their families have used this mechanism to obtain credit for study related to their travel. Some rural school districts have relied on independent study to keep students working when bad weather makes school inaccessible. As these examples illustrate, independent study is not just for would-be dropouts.

However, potential dropouts can use independent study to finish high school. Students who dislike the social experience of regular or continuation high school can study by themselves, at their own pace, in their own way. Those who have fallen behind in their credits can use independent study to catch up during vacations. Students who fail local tests of minimum proficiency for graduation from local high schools can do remedial work under independent study contracts. Alternatively, they can use independent study to prepare for the California High School Proficiency Examination (CHSPE) or the General Educational Development (G.E.D.) test. Passing either of these tests is legally equivalent to obtaining a local high school diploma.

Some California school districts have organized independent study centers. This helps to ensure consistent procedures and standards, and to economize on time required for record-keeping. At the Center for Independent Study (CFIS) in San Francisco, for example, there are standard forms for various kinds of independent study contracts, including long-term and short-term projects, one-time field experiences, and tutoring for the CHSPE or G.E.D. These forms make it easier for students and teachers to specify the content and terms of independent study. All contracts stipulate that students earn one unit of credit (or one week, at the the elementary level) for every 20 hours of work. Students are given a CFIS form called "Record of Time Worked", which they and their parent must sign.

In addition to administering all independent study contracts in the district, the San Francisco center includes a self-contained high school. Begun in 1980, Independence High School enrolled almost 500 students as of January, 1984. Another 210 were on the waiting list. To be admitted, every student must be interviewed -- with a parent. This is another procedure designed to let students and parents know that independent study is a real commitment, not a way to avoid commitment.

Entering the school building immediately confirms that Independence High School is unique. Adults outnumber teenagers. This makes it seem part of the adult world, not a youth preserve. Each of the 16 teachers also holds a counseling credential, and is responsible for 30 students, but ordinarily each student meets with the teacher-counselor only once a week. Therefore, students may be on campus only an hour a week, even though they are earning credit each week for 35 hours of independent study.

When Independence High School opened, 80 teachers applied for the seven positions then available, according to Principal Bess Ricketts. This is an indication of teachers' enthusiasm for this approach to education. Teachers around the state have organized a California Consortium for Independent Study (CCIS) to promote the concept and exchange ideas. Supported by dues, the CCIS publishes a newsletter and a Manual of Operational Procedures, sponsors required workshops and holds statewide meetings each year. Membership is reported still to be growing fast.

As of 1983-84, total statewide attendance (ADA) in independent study was 12,500 -- a substantial number, but still only 0.39 percent of total elementary and secondary attendance. In the 472 districts (43 percent of the total) reporting any attendance in independent study, the fraction in independent study reached 10 percent only in a few extremely small districts. These figures include only independent study for which school boards have made formal provision under the 1976 law. In addition to formally authorized independent study, many students continue to engage in independent learning activities within the context of regular classes (see Harter, 1980). Technically, students in independent activities but without formal contracts are not supposed to be counted in attendance unless they are under the "immediate supervision and control" of a certificated employee. However, the formal policies, procedures, and record-keeping necessary to comply with the 1976 law may still deter teachers and administrators from using it to expand the range of independent study options.

Districts do have some financial incentive to provide independent study for students who are unwilling to attend classes. Contract independent study can get dropouts or near-dropouts back on the attendance rolls, and thereby increase the apportionment of state funds to districts. While some districts have responded to this incentive, many districts have been protected against adverse effects of declining enrollment by provisions of state school finance formulas in recent years. Under current law, however, this protection will expire after 1983-84. Districts that lose attendance then will lose revenues, too. Given increased incentives to maximize attendance, districts may become more interested in using contract independent study to help students stay in school.

Effects of Programs Intended to Keep Students In High School: Analysis of HS&B Data

The HS&B survey asked students about their participation in various programs and special classes. Some of these programs and classes are supposed to be more suitable to the interests or learning styles of students who, for various reasons, find regular academic classes less relevant. An implicit purpose of these alternatives is to keep such students in high school.

One of these alternatives is vocational education, which is intended for students whose interests are more practical than academic, or who learn more easily by focusing on the concrete rather than the abstract. One objective of vocational education is "motivating students to remain in school," according to then Commissioner (later Secretary) of Education, Terrell Bell (1975). The HS&B survey in 1980 asked students how many courses they had completed in each of four vocational areas: business, office, or sales; trade and industry; technical courses; or other vocational courses. From the responses we computed two measures of participation in vocational education. One was simply the total extent of participation, computed by adding together the years of coursework in the four vocational areas. The second was a measure of concentrated participation: the number of courses completed in the one area where the student had completed the most courses. We preferred this measure of concentration, instead of the total number of vocational courses completed in all four areas, because recent research has suggested that the payoff from vocational education is greater when courses are concentrated in one subject rather than spread over a number of subjects (Campbell and others, 1982). Even as early as sophomore year, 43.2 percent of California sophomores had completed at least a year of study in one or more of these four vocational areas.

In addition to vocational classes, the HS&B survey asked about several other alternatives which are intended to be more relevant than regular academic classes for certain students -- and which may therefore keep these students in school. These alternatives included alternative high school; continuation high school (but the HS&B sample of schools did not actually include any self-contained continuation high schools in California); special school for pregnant girls or mothers; cooperative vocational education; and vocational education work-study. Because few sophomores had participated in any one of these programs, we had to combine them in our analysis. Our measure of participation in "alternative" programs was a binary variable, coded 1 if a student had participated in at least one of these five programs, and otherwise coded 0. Only 6.1 percent of the sophomores were coded 1.

Effects of Programs On Dropping Out

To test whether vocational classes or alternative programs might be helping to keep students in school, we used three procedures. Results were mixed. All three procedures compared dropout rates between program participants and non-participants who had a similar prior propensity to drop out. The procedures differed in how they measured this prior propensity.

One procedure simply used students' own statements, in 1980, of whether they expected to finish high school. Most said they did, but some said only "probably," "probably not," or "no." Table 29 shows percentages of 1980 sophomores who had dropped out in 1982. Dropout rates are in fact much higher for students who expressed any doubt in 1980 about whether they would finish. Among those who were in doubt, students who took more vocational classes were more likely to drop out, but those who participated in other alternatives dropped out less often than students who did not

Table 29. Percentage of 1980 California public school sophomores who dropped out, by whether expected to finish high school, extent of vocational education, and participation in alternative programs (percentages based on sample sizes in parentheses, weighted by sampling weights).

	Do you expect to graduate from high school?	
	yes	maybe or no
Total years of course work in all vocational subjects by end of grade 10:		
none	10.4 (668)	29.0 (53)
½ or 1 year	6.5 (660)	48.6 (49)
1½ years or more	7.2 (385)	50.0 (44)
Participated in alternative program:		
no	9.4 (1841)	42.3 (166)
yes	12.1 (108)	21.0 (12)

participate in these other alternatives. However, the sample contained only 12 students who expressed doubt about graduating and participated in alternative programs, so inferences about the dropout-preventing effect of these programs in that group are tenuous.

The second procedure used the measure of concentrated vocational education, along with participation in alternative programs, in logistic regressions to predict dropping out. Prior propensity to drop out was statistically controlled by also including students' background and school performance as predictors. (Results of these other predictors were described in the earlier section on who drops out.) This analysis found no consistent, significant association between dropping out and participation in concentrated vocational education or alternative programs.

The third procedure compared students in schools with similar numbers of dropouts, instead of comparing students who were similar in their individual characteristics. The results are in Table 7 above. In each category of schools, dropouts were less likely than non-dropouts to have taken concentrated vocational education. In all but one category of schools, the future dropouts were also less likely to have participated in other alternatives. Schools with more dropouts also tended to have larger proportions of students, both dropouts and non-dropouts, taking vocational classes and other alternatives.

The first two procedures should give more accurate measures of students' prior propensity to drop out than the third procedure does, but it is this last procedure that produces the biggest apparent dropout-preventing effect of vocational education and alternative programs. We are reluctant to dismiss the findings in Table 7, but we cannot explain why the other procedures give less positive results. We can only conclude that the evidence is mixed.

Effects of Programs On Success Beyond High School

The purpose of encouraging students to finish high school is not to give them a diploma for its own sake, but to improve their chances of success after high school. To determine whether students who took vocational education or alternative programs were more or less successful than other students after leaving high school, we compared the 1982 experiences of 1980 sophomores who dropped out with those of 1980 seniors who graduated. Participation in alternative programs was measured in exactly the same way for the two groups: whether they had, as of 1980, participated in at least one of the five alternatives listed earlier (alternative high school, continuation high school, programs for pregnant girls or mothers, vocational work-study or cooperative education). However, participation in concentrated vocational education was defined differently for the 1980 sophomores and seniors, since the seniors had had more opportunity to take vocational classes. While a 1980 sophomore was considered to have taken concentrated vocational education if she/he had had at least one year of coursework in one or more of the four areas (business, office, or sales; trade and industry; technical; or other), the cutoff for defining a 1980 senior as a concentrator was two years in at least one area.

Chart 2 above shows participation in concentrated vocational education and alternative programs by 1980 sophomore dropouts and 1980 seniors classified by postsecondary enrollment. Direct comparison of the sophomores and seniors is not very meaningful because of the different amount of time in high school and the different definition of concentration in vocational education. But comparison among the three groups of seniors is appropriate. Among all three racial/ethnic groups, with only one slight exception, 1980 seniors who never enrolled in any postsecondary education had more often participated in concentrated vocational education and alternative programs than had seniors who went to four-year colleges. This confirms that both vocational classes and the other alternatives apparently are relevant mainly to high school students who are not college-bound. In estimating effects of these programs on success after high school, we will therefore focus on labor market outcomes.

In view of the mixed evidence reported just above, we cannot assume that vocational education or alternative programs are effective in retaining students who would otherwise have dropped out. We must take other possibilities into account. Specifically, each program participant must fall into one of the following four logical categories. (1) The student would have dropped out if the program had not been available, but in fact did participate in the program and did graduate. The benefit of the program for each student in this category can be estimated as the difference between the success of graduates who participated in the program and the success of dropouts who did not. (2) Some students would not have dropped out even in the absence of the program, and in fact did graduate after participating in the program. The estimated benefit of the program for each student in this group is the difference between the success of graduates who participated and graduates who did not. (3) Some students who participated in the program did drop out, and would have dropped out anyway. For each student in this group the estimated benefit of the program is the difference between the success of dropouts who participated and dropouts who did not. 4) Finally, we cannot rule out the possibility that some participants who did drop out would not have dropped out if the program had not been available. For each student in this last category, the benefit of the program is estimated as the difference between the average success of dropouts who participated and graduates who did not. The estimated benefits of the program for these four groups are not independent -- the sum of the first and last equals the sum of the second and third -- but it is quite possible that the estimated benefits for all four groups are positive. If so, the estimated effect of the program is unambiguously positive, even though we do not know how many students are in each category.

Tables 30 through 33 show the results of this analysis for 1980 sophomores who were dropouts in 1982 and for 1980 seniors who were not enrolled in four-year college in 1982. Each column shows differences in labor market outcomes for students in one of the four hypothetical categories listed above. For instance, the first number in Table 30 shows that graduates who participated in alternative programs had an unemployment rate 20 percentage points lower than dropouts who did not participate in the program.

Almost all the numbers in the first two columns of Tables 30 and 31 are negative, but columns three and four have mostly positive numbers. This means that concentrated vocational education and the other alternative programs do lead to lower unemployment rates -- provided that they induce would-be dropouts to graduate, or at least do not induce would-be graduates to drop out. Black females are an exception to this pattern, but the small numbers of black females in the sample make these numbers subject to a large sampling error (the numbers of black female dropouts who did not participate in concentrated vocational education or other alternative programs were five and four, respectively).

Using weekly earnings as a measure of success in the labor market, Table 32 shows that alternative programs have an unambiguously positive effect for white males and females. However, for Hispanic males the effect appears to be unambiguously negative, and for other groups the results are mixed. Table 33 shows that concentrated vocational education raises weekly earnings of males and Hispanic females if it retains would-be dropouts, and does not induce would-be graduates to drop out. On the other hand, for white or black females concentrated vocational education appears to raise earnings most if it does

Table 30. Differences in unemployment rates between groups of former students in California public high schools who did and did not participate in alternative programs, by sex and race/ethnicity.

	Graduates with program minus dropouts without	Graduates with program minus graduates without	Dropouts with program minus dropouts without	Dropouts with program minus graduates without
All students	-.20	-.06	.08	.22
All males	-.30	-.05	.09	.34
All females	-.10	-.06	NA	NA
Black males	-.18	-.11	NA	NA
Black females	.46	.23	NA	NA
Hispanic males	-.20	-.03	.04	.21
Hispanic females	-.43	-.11	NA	NA
White males	NA	NA	NA	NA
White females	-.04	-.07	NA	NA

Table 31. Differences in unemployment rates between groups of former students in California public high schools who did and did not take concentrated vocational education, by sex and race/ethnicity.

	Graduates with program minus dropouts without	Graduates with program minus graduates without	Dropouts with program minus dropouts without	Dropouts with program minus graduates withou
All students	-.19	-.07	.02	.14
All males	-.30	-.06	-.04	.20
All females	-.08	-.06	.07	.09
Black males	-.15	-.01	.17	.31
Black females	.12	-.23	NA	NA
Hispanic males	-.21	-.11	.13	.23
Hispanic females	-.30	.03	.20	.53
White males	-.34	-.05	-.13	.16
White females	-.03	-.08	.03	-.02

TABLE 32. Differences in average weekly earnings between groups of former students in California public high schools who did and did not participate in alternative programs, by sex and race/ethnicity

	Graduates With Program Minus Dropouts Without	Graduates With Program Minus Graduates Without	Dropouts With Program Minus Dropouts Without	Dropouts With Program Minus Graduates Without
All students	$ 17	$ 17	$ 9	$ 9
All males	31	12	10	-9
All females	7	24	4	21
Black males	20	-23	NA	NA
Black females	-86	42	-83	45
Hispanic males	-22	-48	-47	-73
Hispanic females	12	-2	NA	NA
White males	58	35	57	34
White females	18	28	11	21

TABLE 33. Differences in average weekly earnings between groups of former students in California public high schools who did and did not take concentrated vocational education, by sex and race/ethnicity

	Graduates With Program Minus Dropouts Without	Graduates With Program Minus Graduates Without	Dropouts With Program Minus Dropouts Without	Dropouts With Program Minus Graduates Without
All students	$ 11	$ 9	$ 2	$ 0
All males	32	14	-11	-29
All females	-9	1	23	34
Black males	41	10	NA	NA
Black females	-102	43	-91	54
Hispanic males	22	-3	1	-24
Hispanic females	25	24	-18	-19
White males	34	20	-18	-32
White females	-6	-9	74	71

induce would-be graduates to drop out and does not induce would-be dropouts to graduate. We cannot explain these differences with the data at hand.

Evidently these programs have a more consistent positive effect in helping participants avoid unemployment than in helping them get jobs that pay more money per week. On the whole, participation in both concentrated vocational education and the other alternatives appears to help students more if it keeps them in high school until they graduate.

Conclusions and Recommendations

Dropping out of high school without a diploma is both a symptom and a cause of problems. Higher dropout rates among Hispanics and blacks, among students with lower test scores and absent fathers, and among students whose families are lower on the socioeconomic scale all reflect the schools' greater difficulties with these groups. In addition, the fact of dropping out itself causes problems for dropouts. Over and above the influence of background characteristics, lack of a high school diploma is a barrier to employment. If schools are to alleviate disadvantages due to birth and background factors that children do not choose or control -- or at least if schools are not to compound these disadvantages by adding the dropout stigma -- then something must be done to help more disadvantaged students finish high school. If the overall graduation rate increases, it is possible that the diploma will lose some (more) of its value as a credential from the viewpoint of future employers, and disadvantaged youth might still encounter barriers to employment. However, the schools would be less guilty of perpetuating and intensifying students' disadvantages.

Dropping out is symptomatic not only of schools' difficulties with disadvantaged students, but also of endemic apathy among students of all classes. Few students express interest in classes or schoolwork, although most recognize the importance of the diploma as a ticket to future careers. Students' apathy persists despite the efforts of many dedicated teachers and administrators. It is a response to confinement in an institution that treats students as children because it gives them no responsibility for other people, demands no commitment except to their own personal development. High school is one of several institutions -- including minimum wage and child labor laws -- that arose historically to keep children out of the labor market. Bound by the artificial routine of "taking subjects", and lacking the challenge of responsibility to someone or something outside themselves, many students say they are bored. For some, dropping out can be seen as an extreme response to this same dissatisfaction.

Finally, some students drop out for personal reasons not related to the nature of high school or disadvantaged upbringing. They may be generally troubled, or their problems may center on school itself. Personal problems may also interact with social and situational factors.

Schools currently offer an array of programs to retain students. Retention is a primary objective of continuation high schools and alternative schools. It is an incidental objective of vocational education, work experience, and independent study. Effectiveness of these programs in retaining would-be dropouts has not been adequately measured. Possibly the dropout rate would be higher if these programs did not exist, but no one knows. Fragmentary evidence from the HS&B survey shows no clear effect of vocational or other alternative programs on dropout prevention. The HS&B data do show that students who participate in these programs and then graduate from high school face better prospects for employment than students who do not participate in these programs. However, since the dropout rate remains high, especially among disadvantaged groups, the current situation cannot be considered satisfactory.

One step toward improving the situation would be to put someone in charge. The dropout problem should be pulled out from the present "organizational abyss". The legislature could require the appointment of a "Retention Supervisor" in each school or district, analogous to the attendance supervisor required by current law (E.C. 48240). One responsibility of the retention supervisor would be to account for students who leave high school, to determine whether they dropped out or merely transferred. The retention supervisor should also play a role in prevention, by frequently reviewing attendance and grades to detect early warning signs. (Frequent monitoring of grades and attendance records is becoming easier as computerized recordkeeping becomes more widespread). Students who have begun to fail or cut classes should be given counseling to find out what the problem is and develop a plan to deal with it. Operating within schools, retention supervisors could act more quickly and informally than School Attendance Review Boards.

Retention supervisors would be responsible for matching students with programs. They could also become involved in developing programs, not only for students who have begun to fail or cut classes, but also for students who are just drifting. All students should be given a *choice of commitments*. They should be confronted with the challenge of choosing among programs that demand active involvement and effort. If such programs can shake some students out of their apathy and get them engaged in school, the graduation rate should improve. Developing programs to motivate students therefore addresses the part of the dropout problem that is due to students' boredom.

We have seen several types of programs that are capable of eliciting commitment from would-be dropouts and other students. To illustrate, we will briefly describe five different models: the *street academy*, *caring community*, *school enterprise*, *work brigade*, and *independent study*.

The *street academy* provides intensive academic remediation for students who have fallen behind, perhaps already dropped out for a while, but who now want to make a comeback. Instruction is individualized to some extent, so that students can earn credit more rapidly by working harder on specified learning objectives. The school climate supports students' effort, with strictly enforced rules on attendance and behavior. Students who cannot meet expectations of mature behavior are dismissed. The idea is that attending the school is a privilege; continued membership requires commitment and self-discipline.

A second model is the caring community, which offers a refuge for students who are frightened, angry, depressed, confused, or otherwise troubled. These students are unwilling or unable to cope with the impersonal authority structure of comprehensive high school. They want to be in a smaller group, with teachers who set clear limits but also take the time to understand something of the students' problems. Objectives for students in these settings include not only academic credits, but also improved social skills, ability to manage personal conflicts, avoiding suicide and drugs, and learning practical skills for employment and independent living. Some alternative and continuation high schools presently provide this kind of program.

In a school enterprise, students produce goods or services of value or use to other people. For example, students run restaurants, operate recycling centers, tutor younger children or students of their own age, assist elderly shut-ins, build houses, fix cars, record oral histories, publish books or periodicals, produce programs for radio or television, do feasibility studies of proposals to conserve energy or water, conduct agricultural experiments, build and repair furniture for schools and other public agencies -- and do many more things. The National Commission on Resources for Youth, a nonprofit organization, has documented "thousands" of projects like this (Kohler, 1981). It is not uncommon for vocational classes to operate enterprises where students practice what they are learning (Stern 1983, 1984).

The work brigade model also involves students in doing something productive for other people, but the activity takes place off campus.

Programs of this kind have been operated by various federal, state , and local "conservation corps". For example, the California Conservation Corps, Marin Conservation Corps, East Bay Conservation Corps, and Sonoma Community Conservation Corps currently operate in California. Similar programs operate in 13 other states (Human Environment Center, 1984). The essential idea is to put unemployed youth to work on land or facilities owned by public or nonprofit agencies. The work is hard, and discipline is quasi-military. Staying with it requires commitment. Schools could use their Work Experience option to place students in these programs.

Independent study is an option in which students can participate individually and alone. Some students prefer not to be in a group. For them, the contract-learning structure of independent study provides a path to graduation. It is a path that requires commitment and self-discipline.

Finally, for students who have acquired the basic cognitive skills necessary for survival in the adult world, the California High School Proficiency Examination provides a way to obtain a legitimate diploma (from the state) at age 16 and to leave school if parents permit. This option has never been vigorously promoted by state or local authorities. One reason for promoting it more vigorously in the future is that students who do not want to be in high school, and who are competent to survive in the adult world, are not doing themselves or other students any good by staying against their will. It is better for them to get diplomas from the state than to be labeled dropouts. Furthermore, if schools are going to provide more options for students, the money has to come from somewhere. Saving approximately $3,000 a year on each student who gets a state diploma and leaves school will help to finance programs for other students.

Like the 1983 Commission on Excellence, we seek to keep students "performing on the boundary of individual ability in ways that test and push back personal limits" (p. 12). For some students, academic pursuits and competing for admission to a good college are meaningful challenges. For other students -- and for college-bound students, too -- the challenge that elicits a commitment to excellence may have to be more immediate, concrete, and practical. It may require breaking out from the enforced and artificial self-centeredness of the student role, by doing something useful for other people. That is why there has to be choice.

However, choice by itself does not guarantee excellence. If some options require less effort for the same reward, they become a natural path of least resistance. That is why we emphasize a choice of *commitments*. If alternative programs are not merely to provide an easy way out, they must require students to "push back personal limits". Their success in accomplishing this should be measured by an accountability process no less rigorous than that applied to regular academic programs. Our final recommendation, therefore, is to extend the scope of school performance reports and incentive programs to include non-academic outcomes, ranging from prevention of suicide to the value of services produced by students. With leadership at the state level, school professionals and community members could define other relevant measures of excellence.

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